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# Teacher Professional Development: The Impact of Delivery Structure, Student Physical Presence, and Technology-Enhanced Instruction

Rebecca Durbin

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TEACHER PROFESSIONAL DEVELOPMENT: THE IMPACT OF DELIVERY  
STRUCTURE, STUDENT PHYSICAL PRESENCE, AND TECHNOLOGY-  
ENHANCED INSTRUCTION

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for  
the degree of Doctor of Education

By

Rebecca A. Durbin

August 2018

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Rebecca Durbin

2018

TEACHER PROFESSIONAL DEVELOPMENT (TPD): THE IMPACT OF DELIVERY  
STRUCTURE, STUDENT PHYSICAL PRESENCE, AND TECHNOLOGY  
ENHANCED INSTRUCTION

By

Rebecca Durbin

Approved June 25, 2018

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## ABSTRACT

# TEACHER PROFESSIONAL DEVELOPMENT: THE IMPACT OF DELIVERY STRUCTURE, STUDENT PHYSICAL PRESENCE, AND TECHNOLOGY ENHANCED INSTRUCTION

By

Rebecca Ann Durbin

August 2018

Dissertation supervised by Dr. Jason Margolis

In an ever-changing labyrinth of standards, accountability, and standardized testing, educators seek ways to improve instruction. Teachers need learning experiences that help them navigate an environment in which a growing list of student performance standards and standardized tests determine their success in teacher evaluations (Crawford, 2015; Terehoff, 2002). In this same pursuit, many administrators are challenged in their efforts to provide meaningful professional development to support teachers (Terehoff, 2002). The growing knowledge base of student learning, the implementation of new strategies to teach diverse student populations, and the changing world of technology have increased the need for effective professional development for practicing teachers (Crawford, 2015).

TPD has evolved over time, but it has historically demonstrated some areas of failure. Gulamhussein (2013) explained that a number of areas have forced changes to classroom instruction; these factors are continuous improvement, increasingly higher academic standards (Common Core adoption), and high stakes testing (p. 1). The increased accountability for meeting these new demands has created a need for teachers to learn new teaching practices (p. 1). The issue at hand is not merely regarding providing TPD or even more TPD; the primary concern is in providing effective TPD (Gulamhussein, 2013, p. 1). In writings shared by Gulamhussein (2013) and Darling-Hammond, Wei, Andree, Richardson, & Orphanos (2009), many teachers reported that the TPD they are receiving is not useful in their teaching. The TPD they received was not impacting change in teacher practice or increasing student learning (Gulamhussein, 2013). With historical concerns about TPD implementation, and the absence of discussion about how student physical presence impacts the effectiveness of TPD, a deeper look at TPD delivery methods and levels of student physical presence was warranted.

This study aims to take a deeper look at how the TPD delivery type and the varying levels of student presence impacted TPD experiences for teachers. The goal of this study is to gain insight into which TPD delivery types and which levels of student presence create the most meaningful and applicable learning for educators. The results of the study intend to provide insight and guidance to administrators and TPD planners who are seeking ways to provide quality TPD for the teachers in their schools and districts.

The study data was gathered through qualitative methods, including participant observation, surveys, interviews, and focus groups. The major findings of the study

suggest that higher model levels—which included student physical presence—led to an increased (teacher-reported) application of teacher-learning in the classroom and an increased (teacher-reported) confidence in attempting to apply newly learned techniques and tools. In addition, teachers suggested that these in-classroom sessions were more valuable when a pre- or post-discussion accompanied the session. The results demonstrated that learning at all model levels had value for different intended learning purposes. They also suggested that the TPD learning could be more effective when lower model level sessions are followed up with higher-level SPLT model sessions that occur in the classroom during instructional time with students physically present.

## DEDICATION

This dissertation study is lovingly dedicated to my very supportive husband, Bill, and to my beautiful children Cailyn and Liam. Their love inspires me to be better, to do more, and to make the world a better place. I also dedicate this dissertation to my parents, Sandra and Raymond Hoppe, whose dedication to the profession of teaching has inspired me to become a teacher and to strive to improve the field of education for all students and teachers who work together in the pursuit of knowledge.

## ACKNOWLEDGEMENT

I want to acknowledge many people who have guided and supported me in this journey of my doctoral program. First and foremost, a big thank you to Dr. Jason Margolis for his inspiration, advice, support, and encouragement throughout this process. I hope my work brings some of your visions and curiosities to life, and I am eternally grateful for your belief in me as doctoral student. Working with you has taught me so much and prepared me more for re-entering the field than any course work I have encountered. I also would like to thank my two other committee members, Dr. Rae Mancilla and Dr. Temple Lovelace. Dr. Mancilla, you inspired me and supported me from my first day of the program when I walked into Fisher Hall as a new cohort member. Seeing you succeed was motivating to me, and your diligence continued to remind me that a mom can do anything she puts her mind to! Dr. Lovelace, thank you for your continued support and feedback as a member of my committee and for teaching me so very much in my doctoral studies as one of your many students. Your feedback and teaching will stay with me as I enter back into the field of education.

Next, I would like to thank the members of Cohort 6. The time we spent learning from each other in our course work, the constant encouragement, and the unending support that you have given me since our first moments in Fisher Hall are priceless. Jessica, Robin, and Casey, I have no idea how I would have made it to this day with you weasels! I have learned so much from you all as these years have passed, and I hope that we will continue to support each other as we leave the IT program and enter the world.

I would also like to thank my former teaching colleagues in Shaler Area School District and my teaching friends who inspire me to help TPD become not only something that

they enjoy but also something from which they can derive energy, enthusiasm, and the tools to improve education for all children.

I was blessed in my time in Shaler Area to not only gain a brilliant colleague but also one of the greatest friends in my life. Kristine Bork, thank you for supporting me as I ventured out of our wonderful school and kindergarten teaching team into the unknown world of doctoral study. You inspire me daily with your teaching excellence and love of children. You are always there to “talk shop,” listen to my struggles, and encourage me to push through to the end.

There are two friends who have known me for most of my adult life and who deserve so much more than a thank you. Ruth Bass, our conversations about teaching in the field of special education always keep me grounded and focused on what this study aims to support, which is improving the field of education for *all* children. Connie Consier, you also deserve a big thank you for listening to me while I tackled this degree as a mother of two young children. Your willingness to be there for me when I was stressed, your help with child care, and just plain pushing me to achieve my best have not gone unnoticed.

Thank you to you all so much. My heart is full knowing I have such supportive, inspiring, and loving people in my life who have encouraged me and supported me in order to achieve this dream.

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## LIST OF ABBREVIATIONS

Apps	Applications
PLC	Professional Learning Community
OPLC	Online Professional Learning Community
TPD	Teacher Professional Development
VPLC	Virtual Professional Learning Community
SPLT	Student Presence and Learning Theory Model
LMS	Learning Management System

## **Chapter 1**

### **Introduction**

#### **1.1 Context of the Study**

In an ever-changing labyrinth of standards, accountability, and standardized testing, educators seek ways to improve instruction. Teachers strive to provide high quality education to their students while simultaneously attempting to meet the demands of the administration, the states, and the nation. In this same pursuit, many administrators are challenged in their efforts to provide meaningful professional development to support teachers (Terehoff, 2002). Administrators are faced with the task of providing tools and training to help teachers meet and even exceed the growing standards facing education in the world today (Terehoff, 2002). The need to provide teachers with purposeful and applicable learning experiences is becoming increasingly important. Teachers need learning experiences that help them navigate an environment in which a growing list of student performance standards and standardized tests determine teacher success in their evaluations (Crawford, 2015; Terehoff, 2002). They seek opportunities to grow in their ability to deliver instruction in effective ways and desire TPD sessions that have application to their classroom activities. A number of factors—namely the growing knowledge base of student learning, the implementation of new strategies to teach diverse student populations, and the changing world of technology—have increased the need for effective professional development for practicing teachers (Crawford, 2015).

In many studies, TPD has been noted to have a need for authenticity and to be potentially situated within a classroom environment. This method of delivery would most likely include the physical presence of students (Margolis et al., 2016), or what is also



known as *student presence*. However, when the literature was reviewed, the students and their contributions to the learning experiences were rarely discussed. Whether students were present in the room, seen in a video, or shown through a work sample or project artifact, they are the center of what TPD aims to accomplish. In other words, TPD aims to improve instruction in order to increase student learning and achievement. In the TPD literature, the activities with higher levels of student physical presence were not commonplace in the American school landscape and were rarely found in American schools (Margolis et al., 2016). The lack of this type of TPD may be due to a number of barriers, such as financial limitations, school culture and structure, and the structures in place to plan and evaluate TPD activities (Margolis et al., 2016).

TPD has evolved over time, but it has historically demonstrated some areas of failure. As explained by Gulamhussein (2013, p. 1), continuous improvement, higher academic standards (Common Core adoption), and high stakes testing have required changes to classroom instruction. These new and increasing demands create the need for teachers to learn new teaching practices (Gulamhussein, 2013, p. 1). The issue is not with whether TPD should be provided or even whether it should be increased in amount; the main concern is with providing effective TPD (Gulamhussein, 2013 p. 1). As shared by Gulamhussein (2013) and Darling-Hammond, Wei, Andree, Richardson, & Orphanos (2009), many teachers have reported that they do not find the TPD they have received to be useful for their teaching. This sentiment is echoed in studies by several other authors. They have explained that the more traditional approaches—such as teacher in-service sessions—are commonly presented by experts who are external to the school, and the approaches typically do not take into account the dynamics of the school setting in which

they are presented (Corcoran, 1995; Little, 1989, 1994; Wilson & Berne, 1999, p. 174). It was found that these sessions teach educators very little and are often irrelevant to their educational setting (Corcoran, 1995; Little, 1989, 1994; Wilson & Berne, 1999, p. 174). As a result, the TPD that the teachers have received does not impact changes in teacher practice or increase student learning (Gulamhussein, 2013). One area in which TPD typically fails is in the area of duration. One-shot workshops—which typically occur for less than fourteen hours—have been shown to have no effect on student achievement and do not change teaching practices (Gulamhussein, 2013, p. 10). Gulamhussein (2013) explained that the duration of TPD should be “significant,” “ongoing,” and could require as much as 50 hours of practice and coaching for a change in instruction to occur (p. 14). Short duration workshops may assume that the teachers’ learning needs are only related to the need for more effective teaching practices (Gulamhussein, 2013, p. 10). These workshops typically fail when teachers attempt to transfer learning from the session and apply it in their classroom settings (Gulamhussein, 2013, p. 10). This failure typically is a result of the lack of support provided to teachers at the level of classroom implementation (Gulamhussein, 2013, p. 11). Spending more time in training has not shown to be enough to impact teacher change. Upon deeper examination, the way in which the time is spent has more impact. Time should be spent providing substantial support during the implementation stage, which increases change in teacher practice (Gulamhussein, 2013, p. 15). This thought is further supported by Gov. James B. Hunt Jr. (as cited in Darling-Hammond et al., 2009), who stated that

Teachers lack time and opportunities to view each other’s classrooms, learn from mentors, and work collaboratively. The support and training they receive is

episodic, myopic, and often meaningless. Meanwhile, states and districts are spending millions of dollars on academic courses disconnected from the realities of classrooms, but little on helping educators find solutions to the day-to-day challenges they face. (p. 2)

Furthermore, the literature goes on to show more areas in which TPD typically fails to impact teacher change. In the study, these areas included a lack of variety in presentation methods, a lack of active participation activities, little or no modeling, and generic content that is not immediately applicable to a teacher's unique classroom environment or discipline (Gulamhussein, 2013, pp. 16–18).

It should also be noted that many barriers exist to implementing effective TPD in schools. As Darling-Hammond et al. (2009) explained,

The structures and supports that are needed to sustain teacher learning and change and to foster job-embedded professional development in collegial environments fall short. The time and opportunities essential to intense, sustained professional development with regular follow-up and reinforcement are simply not in place in most contexts, as evidenced by the short duration of most professional development activities. (p. 27)

With these barriers existing in the TPD landscape, TPD often falls short of the intended goal to increase student achievement. Technology use has been suggested in some instances as a means to overcome some of the typical TPD barriers and to provide a more sustained duration of TPD activities (Barnett, 2002).

In the area of technology-enhanced or delivered TPD, there is some debate as to whether different outcomes should be expected when only the delivery method is

changed (Fishman et al., 2013, p.4). In using technology as a delivery method, research may need to explore the features and benefits that technology may provide which may not be provided by face-to-face interactions (Fishman et al., 2013). This may include more time to focus on the content that is important to the learner as well as only spending the time the learner needs in order to feel confident in their own learning (Fishman et al., 2013). Research by Tseng and Kuo (2014) showed that teachers who engaged in an online professional learning community (OPCL) increased their pro-social behaviors and increased their instances of sharing resources to support the problems that other members experience in their teaching (p. 43). What has not been addressed in most online TPD research is the actual level of student presence in the activities—such as the types of student artifacts that are shared and discussed—and the ways in which these impact the teachers’ perceptions of the learning experience. The discussions often highlighted the idea of teachers being *socially* engaged in learning with peers, but student presence is not explored in terms of what teachers are sharing when they discuss practice.

In its beginnings, TPD was provided outside of the classrooms and schools (Terefhoff, 2002). In the United States, TPD is most often still provided to teachers during non-instructional hours in a workshop format (Glazer & Hannafin, 2006). A report by Darling-Hammond et al. (2009) explained that 9 out of 10 teachers in U.S. have participated in TPD in a format that was a short-term conference or workshop (p. 5).

As time has passed, TPD has changed greatly from these one-time workshop models. Specifically, TPD has evolved through time and progressed through professional learning communities (PLCs) with social constructivist views to job-embedded learning with social learning theory views, and it has arrived at a place where using technology as

a delivery method for TPD is now being explored (Margolis et al., 2016). Studies have looked at the impact of these various types of TPD; however, a variable that is often overlooked is the role played by student presence (i.e., student work samples, videos, or students actually in the room) in the teacher's perceptions of the TPD (Margolis et al., 2016).

By taking into account the historical concerns about TPD implementation and the absence of discussion about how student physical presence impacts effectiveness of TPD, a deeper look at TPD delivery methods and levels of student physical presence was warranted. This study aims to take a deeper look at the impact that TPD delivery type and varying levels of student presence had on TPD.

This study explores a variety of TPD delivery methods and varying levels of student presence to gain insight as to how they impact teacher perceptions of the learning experience. It examines varying levels of student presence as presented in the student presence and learning theory model from Margolis et al. (2016). The study's exploration aims to provide further support to educators and administrators in selecting, creating, and providing TPD experiences that impact teacher learning, thus having impact on student growth in the classroom. The goal of this study is to gain insight into what TPD delivery types and levels of student presence create the most meaningful and applicable learning for educators. It is the intention of the study to provide guidance to administrators and TPD planners who are seeking ways to provide quality TPD for the teachers in their schools and districts.

## **1.2 Purpose Statement and Research Questions**

The purpose of this study is to explore the varying delivery methods of TPD and the levels of student presence to provide insight into teachers' perceptions about the authenticity, usefulness, and future application of the TPD learning activities. The student presence and learning theory (SPLT) model from Margolis et al. (2016) was explored as fully as possible under the guidelines of the two participating school districts. This study includes considerations for their TPD goals, content, and plans. The model below shows the levels that are explored, which are coupled with the relevant learning theory and the level of student presence they provided.

Theory Behind TPD Event:	Level 1 - Outside Expert Presents Ideas	Level 2 - Insider Presents Ideas through Narrative	Level 3 - Insider Presents Ideas through Narratives and Artifacts	Level 4 - Insider Presents Ideas through Visual Demonstrations	Level 5 - Insider Guest Teaches	Level 6 - Insider Conducts Planned, Episodic Studio Classroom	Level 7 - Insider Conducts Ongoing Studio Classroom
Sociocultural – school culture emphasizes teacher experimentation and learning from practice					High student presence	> Lesson Study <sup>9</sup> > Learning Walks <sup>10</sup> > Partner-teachers visit to each other's classrooms <sup>11</sup>	> A teacher or TL hosts an ongoing studio classroom that includes dialogue about practice <sup>12</sup>
Situated Learning – teacher learning is situated in authentic teaching experiences			Moderate student presence		> Teacher or TL models a lesson in another teacher's classroom <sup>8</sup>		
Social Learning Theory – teachers learn within groups embedded in the school context	Low or no student presence		> Teachers share experiences and student work <sup>4</sup> > Teachers are organized into PLCs <sup>5</sup>	> Teacher models a lesson at TPD day <sup>6</sup> > Teacher models a lesson using a video of own classroom <sup>7</sup>			
Constructivism – teachers learn by connecting new knowledge with previous experiences		> Teacher presents ideas rooted in personal classroom experiences <sup>2</sup> > Online virtual communities <sup>3</sup>					
Behaviorism – the administration delivers instructional material through formal channels	> External consultant or school administrators present new approaches <sup>1</sup>						

Figure 1. Student presence and learning theory model. (Margolis, Durbin, and Doring, 2016, p. 7)

To address the main research objective, the following research questions guided the study.

***Research question and four main parts:***

*How do TPD delivery methods and student presence at various levels of the SPLT model impact teachers' perceptions of professional learning experiences in the areas of:*

- 1. Authenticity*
- 2. Usefulness*
- 3. Application*
- 4. Impact/Role of Technology*

### **1.3 Study Significance**

After preparing an article for publication in *Professional Development in Education*, which was written by Dr. Jason Margolis, myself, and Ann Doring, a gap was found in the research on TPD in terms of the impact on teachers when varying levels of student presence were incorporated into the TPD. For the purpose of this study, the term *student presence* includes anecdotal stories about students engaged in work, student paper work samples, student projects, digital work samples, images of students engaged in the classroom, videos of students in the classroom, and the actual student physical presence that exists when TPD physically occurs in the classroom during regular instructional hours. There is a vast amount of literature about many varieties of TPD, but none that were reviewed discuss the varying levels of student presence and whether they impact the perceptions teachers or how they impact teacher learning. The absence of students from



the discussion may suggest a missing factor that should be considered in planning TPD for educators.

The goal of the study is to conduct research that gives information about teachers' perceptions of the varying delivery methods of TPD and their corresponding levels of student presence. It is the intention of the study that the insights into logistics, planning, and implementation are gained from the perspectives of the teachers involved in TPD activities at varying levels. The research also aimed to demonstrate how technology-enhanced or delivered TPD incorporated student presence, how this impacts teacher perceptions, logistical implications, and what the potential impact is on planning and logistics for administrators.

In omitting the students, researchers may overlook the intended purpose of TPD, which is to improve instruction for students. TPD researchers and those who implement TPD may benefit from an exploration of the impact of student presence on TPD activities, as this component may have an impact on the authenticity and effectiveness of learning activities for classroom teachers.

#### **1.4 Overview of the Dissertation**

A brief descriptive overview of the dissertation is provided in this section. Chapter 1 explains the context of the study, its significance, the model that is explored, and the research questions. Chapter 2 gives a review of the literature that is relevant to the study, including information on the history of TPD and learning theory; it also includes detailed information about types of TPD and student physical presence in the theoretical framework. Chapter 3 provides the research methodology, information about the participants, the setting of the research, and the data collection activities and methods.

Chapter 4 describes in detail the results of the study in order to report more specifically the data collected and how it relates to future TPD planning considerations. Chapter 5 shares an analysis through the SPLT model theoretical framework Chapter 6 discusses the limitations of the study, future TPD applications, and future TPD research that is indicated by the data analysis.

## **Chapter 2**

### **Literature Review: Evolution of TPD and Technology-Enhanced TPD**

#### **2.1 TPD and the Historical Evolution of TPD**

TPD is an experience designed to build upon teachers' knowledge. It impacts their attitudes, and it is intended to increase their skills, content knowledge, and pedagogy (Crawford, 2015, p. 1027). TPD can vary in a number of ways, including the duration, content, and delivery mode (Crawford, 2015, p. 1027). It is provided in a wide range of formal and informal situations. Some activities can include traditional in-service workshops, college coursework, PLCs, informal peer interactions, classroom observations, and coaching/mentoring (Darling-Hammond et al., 2009; Ganser, 2000; Glazer & Hannafin, 2006). On the whole, the ultimate goal of TPD is to augment student learning (Crawford, 2015).

In the world of education, change is a prominent theme as educators and administrators strive to improve instruction and increase learning outcomes for students. In keeping with this ever-changing world, TPD has also gone through an evolution to stay in line with the change in learning theories and changes in instructional practices (Margolis et al., 2016). Throughout the years, teachers have engaged in TPD sessions that occur at their schools and at outside locations, and these sessions are administered by a wide range of providers and professional organizations (Ganser, 2000). Throughout the history of TPD, there have been a variety of changes in delivery and theory. There have been some TPD delivery types that have been mainstays in the realm of K-12 education. Workshops and off-campus conferences are frequently used and often founded on

behaviorist approaches towards learning (Pitsoe & Maila, 2012). This training methodology has been pervasive in the educational culture for many years; it is typically called *in-service* and is presented in isolated workshops or short-term activities that are typically not directly connected to daily classroom practices (Villegas-Reimers, 2003, p. 11–12). This type of TPD remains prominent in U.S. school districts and is mostly provided during non-instructional times (Glazer & Hannafin, 2006). In terms of its effectiveness for invoking teacher change and increasing student achievement, there is little evidence-based support for its use (Glazer & Hannafin, 2006). A body of research has shown that these one-time sessions do not provide the needed supports to evoke change in teachers’ instructional practices (Glazer & Hannafin, 2006, p. 179). This same sentiment is echoed by Gulamhussein (2013), who explained that the TPD duration should be “significant” and “ongoing” (p. 14). This same research also suggested that the biggest failure of the one-time workshop typically lies in the lack of support for teachers at the level of classroom implementation (Gulamhussein, 2013, p. 11). The idea of the effectiveness of one-time workshops is also challenged by Villegas-Reimers (2003). In a review of the literature, Villegas-Reimers (2003) found that effective TPD should be a “long-term process” that takes place “in context” and is “reflective” and “collaborative” (p. 13–15).

TPD implementation has begun to move from behaviorist-influenced activities to adopt a more constructivist view, in which collaboration and community building become the focus of TPD (Borko, 2004; Ganser, 2000). One of the types of TPD that emerged from this new thinking is the idea of using PLCs to improve instruction. PLCs have become more prevalent in the landscape of TPD (Margolis et al., 2016). The idea behind

a PLC is to create a community in which teachers can share ideas, identify problems of practice, and work towards solutions in a collaborative way (Borko, 2004; Ganser, 2010; Hawley & Valli, 2000; Margolis et al., 2016). There have been noted concerns with setting up effective PLCs that tackle the real work of teaching. Margolis et al. (2016) suggested possible challenges in this area, including a lack of time, physical space, lack of a deep conversation, unsupportive school culture, fear of critiquing others, and a lack of focus for the discussions. Supports for PLCs may be provided by administrators in terms of reducing non-instructional duties for teachers, coordinating schedules so teachers can meet, and helping the members to set goals for PLC activities (Ganser, 2010, p. 8). These challenges can only be reduced with the support of administrative and structural changes. With this in mind, TPD research has indicated that collaboration and job-embedded TPD may be more effective than isolated sessions (Darling-Hammond & Richardson, 2009). Although PLCs may be more successful to an extent, the idea of job-embedded TPD emerged next on the reform scene in an effort to further advance the effectiveness of TPD.

Following the ideas and challenges presented from the stance of social constructivism, job-embedded forms of TPD began to emerge. Croft, Coggshall, Dolan, Killion, and Powers (2010) explained this approach to TPD as “learning that is grounded in day-to-day teaching practice” which is “primarily school or classroom based” and “integrated into the work day” (Croft et al., 2010, p. 2). With job-embedded TPD, the content is based on the educational needs of the context in which the teachers are working in their day-to-day environments (Croft et al., 2010). Types of job-embedded TPD may include peer observation, coaching and push-in supports, team teaching, and

model classrooms. School and classroom-based TPD may ultimately lead to more successful connections in classroom applications of teacher learning and teachers may be able to maintain their use over a longer time period (Garet et al., 2001, p. 921).

With this brief review of the journey that TPD has taken, the following sections seek to provide more detail about the types of TPD that are observed in this study. They are more specifically one-time workshops, PLC, technology delivered/enhanced TPD, and job-embedded forms of TPD.

### **2.1.1 Isolated/One-Time Workshops and Behaviorism**

This type of TPD delivery has been commonplace in the U.S. system of K–12 education. The sessions typically are one-time lectures, workshops, or information sessions provided to teachers on or off school sites. The workshop is a more structured form of TPD that typically occurs outside of the classroom and is presented by an expert or leader (Garet et al., 2001). The content of these sessions may vary based on school district planning, goals for the school year, or school improvement plans. These types of sessions and off-campus conferences are still mainstays for TPD, and they are usually founded on behaviorist approaches towards learning (Pitsoe & Maila, 2012). The prevalence of this form of training is demonstrated in the table from Darling-Hammond et al. (2009). The Schools and Staffing Survey (SASS) Teacher Questionnaire data shows clearly that the most prevalent form of TPD continues to come in the form of workshops, conferences, and training sessions.

<b>TABLE 1 - Participation in Traditional Professional Development</b> (Percentage of teachers reporting participation in traditional professional development during the previous 12 months, 1999-2000 and 2003-04)		
Types of traditional professional development	Percentage of teachers 1999-2000	Percentage of teachers 2003-04
1) University courses for recertification or advanced certification <sup>a</sup>	31.6	
University courses in the main assignment field <sup>a</sup>	23.4	
University courses related to teaching <sup>b</sup>		35.5
2) Observational visits to other schools	34.4	22.4
3) Workshops, conferences, or training sessions (not a presenter)	94.8	91.5
4) Presenter at workshops, conferences, or training sessions	22.3	25.1

<sup>a</sup> These questions were asked in the 1999-2000 SASS Teacher Questionnaire but not in the 2003-04 version.

<sup>b</sup> This question was asked in the 2003-04 SASS Teacher Questionnaire but not in the 1999-2000 version.

Figure 2. “Table 1-Participation in Traditional Professional Development  
(Darling-Hammond et al., 2009 p. 19)

This training methodology—often called *in-service training*—usually includes short-term activities that may not directly relate to teachers’ daily instructional practice (Villegas-Reimers, 2003, p. 11–12). Many of these workshops are one-time workshops that are provided to a group of teachers in varying grades and subject areas that lack differentiation in order to help meet teachers’ needs (McConnell, Parker, Eberhardt, Koehler, & Lundeborg, 2006, p. 268).

There is literature that has explored the professional development activities which are more isolated, such as one-time workshops, and these studies have made some significant findings in terms of their effectiveness. Although these workshops have proven to increase teacher knowledge, they are ineffective at changing teacher practice and strategies (Boyle, B., While, & Boyle, T., 2004; Richardson & Placier, 2001). These sessions are rarely on-going or followed up with additional training or support. The research has tended to suggest a move away from these types of training methods due to a

lack of teacher change and a lack of impact on student achievement. The largest effects on student achievement were found in TPD programs lasting more than 30 hours over a six to 12-month period (Darling-Hammond & Richardson, 2009, p. 3)

### **2.1.2 The PLC and Social Constructivism**

In recent years, research has begun to show that TPD involving collaboration among *like-peer groups*—also known as grade-level peer groups in some studies—impacts student achievement (Macia & Garcia, 2016 p. 292). PLCs are described by Darling-Hammond and Richardson (2009) as a TPD activity in which teachers discuss, reflect on, develop, and integrate more effective teaching practices in an on-going and collaborative format (Darling-Hammond & Richardson, 2009). As Ganser (2010) explained, “Professional learning communities (i.e., structured time for teachers to come together and discuss issues of teaching practice and student learning) can be forums for job-embedded professional development” (p. 5). Research by Darling-Hammond et al. (2009) stated that

When schools are strategic in creating time and productive working relationships within academic departments or grade levels, across them, or among teachers school wide, the benefits can include greater consistency in instruction, more willingness to share practices and try new ways of teaching. (p. 11)

This theme is continued in other literature, and it explains the goal for this form of TPD. The vision for this type of learning involves social construction of knowledge through shared expertise and experiences, which includes the mutual sharing of teaching practices and ideas (Glazer & Hannafin, 2006). Collaboration with peer teachers is one of the most important aspects of the PLC model (Margolis et al., 2016). This type of collaborative



group often centers on a discussion that involves the analysis of student work, student data, and instructional techniques (Darling-Hammond & Richardson, 2009 Stoll, Bolam, McMahon, Wallace, & Thomas (2006) described the key components of a PLC as shared values/vision, collective responsibility, reflective professional inquiry, collaboration, and the goal of group and individual growth (pp. 226–227). Borko (2004) suggests that PLCs can be important contributors to school reform and instructional changes. They have the ability to change instruction in the classroom when implemented effectively, but many lack the components that make them effective TPD for teacher-learners (p. 7). Additional PLC challenges found in TPD-literature included content that was disconnected from actual classroom practices (Harris & Jones, 2010) and additional strains placed on already taxed teachers by adding more required meeting time to their work (Stoll et al., 2006. The basic set-up for some school districts can deter the effectiveness of PLCs, such as an inadequate number of teachers in the same grade or subject area and a lack of shared work time (McConnell et al., 2013, p. 268). Educators have sought to find solutions to the challenges faced when implementing PLCs. As time and technology have progressed, there has been a movement toward the use of technology to support some of the logistical issues involved in traditional face-to-face PLCs.

### **2.1.3 Technology-Enhanced TPD-Virtual PLC's**

A virtual professional learning community (VPLC)—also referred to as an online professional learning community (OPLC)—is similar in the intent and design to that of a traditional face-to-face PLC. Virtual professional learning communities (VPLC) have taken many forms, such as wikis, blogs, discussion groups, video sharing/conferencing (i.e., Skype), and more organized forms in course management software (McConnell et

al., 2013, p. 269). The sharing of practice can be made possible through the sharing of videos and plans. It also benefits teachers by giving them the ability to *see* other teacher's teaching (Brooks & Gibson, 2012). The possible benefits of online professional communities could include the ideas of more personalized learning, more focus on practice, and allowing for a collaboration among teachers that is more sustained over time (Brooks & Gibson, 2012). Online professional development could expand offerings of TPD to teachers and allow for activities that might not be offered in their local schools or area (Chen, Chen, & Tsai, 2009, p. 1155). The use of technology to supplement traditional professional development may allow schools to have a structure for on-going and sustained professional learning (Brooks & Gibson, 2012).

In recent years, research has begun to show that TPD involving collaboration among like, or equal, peer teachers encouraged student achievement (Macia & Garcia, 2016, p. 292). In terms of traditional PLCs, research has reported some failures in structure and content causing PLCs to be less effective than hoped. One of the features that impeded the effectiveness of PLCs in a traditional sense was a lack of like peers, or teachers of the same grade and subject level, to participate in the collaborative discussion (McConnell et al., 2013, p. 268). Advances in technology, such as the increase in portable devices, the use of blogs, and social media, allow teachers to connect with other teachers who can support them in learning and the approach to issues of practice (Macia & Garcia, 2016). Teachers are able to connect with more peers who teach similar grade levels and content in order to gain more collaborative ideas that specifically focus on their own instructional needs and goals.

Virtual PLCS were found to have comparable results in terms of the type of discussion and teacher sharing and were considered an effective solution for teachers when face-to-face meetings were not practical or possible (McConnell et al., 2013, pp. 272–273). The idea that this type of TPD could alleviate many of the barriers to traditional PLCs and traditional grade-level sharing, such as time, space, and availability of like peers is promising.

As theory and time has progressed, districts continue to seek more innovative and authentic ways in which the instructional growth of practicing teachers can be supported. One area of reform is the idea of using more job-embedded and situated learning for educators.

#### **2.1.4 Job-Embedded TPD**

The idea of job-embedded TPD includes activities that occur within the school setting and often times during the school day. Job-embedded learning occurs during daily practice in school settings and is designed to support teacher growth in instructional practices, which in turn increases student achievement (Ganser, 2010, p. 2). TPD has been shown to have a more meaningful impact when it occurs in authentic environments, such as a classroom (Glazer & Hannafin, 2006). This type of TPD is framed by learning theories that include social learning theory, situated learning theory, and sociocultural theory (Margolis et al., 2016). The realm of activities that are included in this category of TPD are mentoring, coaching, lesson study, peer observation, and analysis of student work (Ganser, 2010, p. 5). Although numerous studies suggest on-going, situated, and sustained models of TPD may be more effective, few opportunities for this type of TPD are commonplace in the U.S. educational system. As stated in Darling-Hammond (2009),

The United States is far behind in providing public school teachers with opportunities to participate in extended learning opportunities and productive collaborative communities. Those are the opportunities that allow teachers to work together on issues of instructional planning, learn from one another through mentoring or peer coaching, conduct research on the outcomes of classroom practices, and collectively guide curriculum, assessment, and professional learning decisions. (p. 6)

Job-embedded learning for professional learning has occurred in other many other fields and is a mainstay for learning in the medical field. A study by Diemers, Dolnan, Verwijnen, Heineman, and Scherpbier (2008) described the impact of pre-clinical patient contact with medical students. This study suggested powerful support for job-embedded learning:

Students say that they remember more about a disease when they see a real patient than when they only read about it. Seeing real patients intensifies self-study and efforts to link theory and patients. This promotes retention and facilitates retrieval of knowledge. (Diemers et al., 2008, p. 639)

This thought has led some research educators to attempt transferring this model into teaching practices and training. More recently in the history of TPD, educators have begun to study and practice forms of this type of *rounding* in the U.S. and other countries. One instance is known as *instructional rounds in education*, which is a method that is being supported by a group of university education professors in the U.S. (City, Elmore, Fairman, & Teitel, 2009). In this model, teachers and administrators make classroom observations as a team together, and the observations focus on a problem of

practice. Afterwards, they debrief about the observation with a set of guidelines that focuses the discussion on a pre-determined problem of practice and utilizes the information gathered to determine the next steps in terms of school improvement and reform (City et al., 2009). Although this type of TPD is occurring in U.S. schools, it is still emerging in the field, and there is little published research on the impact of these rounding experiences and the impact of student physical presence that is imbedded into these experiences (Margolis et al., 2016).

Coaching can be a way to imbed learning into the school day. A study by Burke (2013) demonstrated that the use of experiential educators—combined with on-site coaching—created increased opportunities for “meaningful, transformative, experiential professional development” (p. 260). This may allow teachers to better understand and apply research and theory to their daily instructional practices (Burke, 2013, p. 260). Burke (2013) further supports the notion of job-embedded learning by saying,

The teachers were able to understand and apply theory and research into practice by engaging in practical learning experiences with support from a consultant. They were allowed the time and given the support to learn in *their* classrooms with *their* students. (p. 259)

To give some perspective on how much of this type of TPD is occurring in U.S. schools, Darling-Hammond et al. (2009) shared data from several years of the SASS Teacher Questionnaire. Figure 2 shows the teacher reported occurrence of job-embedded TPD.

<b>TABLE 4 - Participation in Job-Embedded Professional Learning</b> (Percentage of teachers reporting participation in informal professional learning, 2003-04)		
<b>Types of collaboration</b>	<b>Percentage of teachers 1999-2000</b>	<b>Percentage of teachers 2003-2004</b>
1) Individual or collaborative research on a topic of professional interest	46.7	39.8
2) Regularly scheduled collaboration with other teachers on issues of instruction (excluding administrative meetings)	74.4	70.4
3) Peer observation	42.1 <sup>a</sup>	63.0
4) Mentoring / coaching		45.7

<sup>a</sup> This was a single item in the 1999-2000 SASS Teacher Questionnaire: "Mentoring and/or peer observation and coaching".

Figure 3. Table 4-Participation in Job-Embedded Professional Learning (*Darling-Hammond et al., 2009 p. 23*)

As shown in the table, some areas of TPD are reported less frequently over the years, but the areas of mentoring and coaching increase as the years progress. This may indicate that these types of TPD activities may be on the rise in U.S. schools.

Although the research supports the efficacy of many types of job-embedded TPD experiences, it is important to acknowledge the barriers that schools often face in trying to implement this practice. Some of the literature has explored the types of barriers that can occur to impede job-embedded forms of TPD. Glazer and Hannafin (2006) cited barriers that include limited resources and budgets; they also explained that these issues can have a negative impact on the amount of support available for the use of instructional and technical specialists (p. 180).

#### **2.1.4.a Coaching/Mentoring**

Coaching has been used as a form of TPD in education, and it is most often used to support novice teachers as they enter the field (Onchwari & Keengwe, 2008, p. 20). It has been known by a variety of names, such as instructional coach, learning facilitator, technology coach, technology facilitator, and mentor teacher. The role's intent may vary,

but it is often described as a means of supporting teachers to take the information and skills they have learned and to implement them in ways to increase student achievement (Thomas, Bell, Spelman, & Briody, 2015, p. 1). According to Thomas et al. (2015), the ideal vision of a coach is to provide “intensive, differentiated support to teachers so that they are able to implement best practices” (p. 1). Their role may include modeling, observing, giving feedback, and sharing of expertise; in addition, they perform these roles while entering into a close and mutually supportive relationship (Onchwari & Keengwe, 2008, p. 20; Thomas et al., 2015, p. 1).

There is vast research to support the use of coaching/mentoring as a form of ongoing TPD. In a study by Philips, Nichols, Rupley, Paige, and Rasinski (2016), teachers experienced an increase in the use of instructional language and an overall increase in student reading achievement when compared to teachers and classrooms who received the same training sessions with no follow-up coaching (p. 20). The same study by Phillips et al. (2016) cited that teachers retained more learning when coaching was provided following TPD sessions (p. 12). Neuman and Cunningham (2009) found results that were similar, stating that early childhood teachers engaged in more high-quality literacy practices when they were supported by a specialist in the classroom (Neuman, 1999; Neuman & Cunningham, 2009, p. 538). In similar research, Onchwari and Keengwe (2008) discovered a positive impact on teachers in terms of their attitudes towards changing pedagogy—as well as enhanced pedagogy—when mentors supported teachers in this on-going format (p. 23). The role of this type of sustained TPD is further supported in a report by Darling-Hammond et al. (2009), in which they stated that the “duration of professional development appears to be associated with stronger impact on

teachers and student learning—in part, perhaps, because such sustained efforts typically include applications to practice, often supported by study groups and/or coaching” (p. 9). Teachers who receive coaching may be more likely to use desired teaching practices than those who participated in other forms of TPD (Darling-Hammond et al., 2009, p. 12). It is also important to note that the “jury remains out” as to the effectiveness of coaches and the conditions which must exist to cause them to be effective (Darling-Hammond et al., 2009, p. 12).

The idea of using mentoring/coaching holds promise for TPD, yet little of the literature describes how the student physical presence affects the teacher’s perceptions of this type TPD and its efficacy.

#### **2.1.4.b Peer Observation**

Dos Santos (2016) defined peer observation as a process that involves teachers observing a peer-colleague’s instruction and engaging in a constructive discussion that explores the ways in which teacher practices could be improved (p. 39). In comparison to activities such as traditional in-service—which 9 out of 10 teachers report participating in—this type of TPD is less prevalent, with observational visits to other schools occurring with only 22% of teachers (Darling-Hammond et al., 2009, p. 5). Darling-Hammond et al. (2009) also stated, “The percentage of teachers who visited classrooms in other schools dropped from 34 percent to 22 percent from 2000 to 2004” (p. 5).

In research by Dos Santos (2016), observation was found to be a tool that could be used for a more sustainable model of TPD. According to a study by Daniels, Pirayoff, and Bessant (2013), teachers felt energized by the post observation discussions between peer teachers which focused on the teaching that was happening in the classroom and on



the ways to strengthen the instruction. The teachers left the debrief sessions with specific strategies to implement in their classrooms, and they can also analyze these strategies during their planning times (p. 272). The relationship of peer observers is also noted to be an important component in terms of success. Shortland (2010) describes the peer observation relationship by saying, “Peer observation partners should not be ‘critical’ or ‘friends’ in stand-alone terms, but rather act as ‘critical friends’. This relies heavily upon the building of trust” (p. 297). In a study by Bell and Mladenovic (2008) that involved tutors engaging in peer observation, the idea of just being able to observe other tutors in the act of teaching was beneficial (p. 15). They also reported a few benefits, such as tutors having more intent to change teaching practices, an increased reflection on their own teaching practices as a result of observing peers, and the sharing of results in a collaborative way (Bell & Mladenovic, 2008).

There have been some potential barriers identified to peer observation that may hinder its success (Dos Santos, 2016, p. 46). The barriers reported in this study included lack of time in the schedule for post-observation conversations about teaching, a lack of experience with this type of TPD, possible discomfort with peers observing (or friction among peer teachers), and the idea that the observation may have been implemented to please administrators and meet government requirements (Dos Santos, 2016). The need for careful framing of the observation and feedback was noted by Bell and Mladenovic (2008); they suggested that guidelines on how to provide non-judgmental, constructive feedback should be provided as part of a peer-observation program (p. 5). This idea was echoed in the research done by Shortland (2010), who stated that discussions could be particularly “emotive” and based on “interpretations,” or even fueled by competition or

personal concerns (p. 302). Careful planning and conscious training of debriefing tactics may be beneficial in overcoming some of these barriers (Bell & Mladenovic, 2008; Shortland, 2010).

## **2.2 Student Presence and TPD Research**

Themes of situated, authentic, and collaborative TPD being key components to improving classroom practices have been seen throughout the literature (City et al., 2009; Ganser, 2010; Glazer & Hannafin, 2006; Margolis et al., 2016). Although these studies stress the features of collaboration and authenticity, one important aspect of this type of TPD went largely undiscussed: the students. In a review of the literature, student physical presence is vastly absent from the discussions of the perception and impact of TPD activities. It was proposed by Margolis et al. (2016) that the authenticity of a TPD activity may be impacted by the environment and the amount of student physical presence. They suggest a collection of empirical data that explores whether student presence (i.e., anecdotal stories about students engaged in work, student paper work samples, student projects, digital work samples, images of students engaged in the classroom, videos of students in the classroom, and TPD that occurs in the classroom with students) could be a factor in the way teachers perceive TPD and ultimately how they apply this TPD to their daily practice. This potential missing piece of the puzzle inspired and guided this study as it aimed to contribute some insights into this gap in the literature. As the work by Margolis et al. (2016) proposed, it is plausible to ask whether students could actually be the missing link that largely is overlooked in terms of the perceptions and effectiveness of TPD activities. With the above in mind, this present study aims to find empirical data in order to explore the SPLT model (Margolis et al.,

2016, p. 7) created by the authors and to shed light on the questions they proposed for future empirical research (Margolis et al., 2016).

### **2.3 Theoretical Framework**

The theoretical framework that the study and data analysis is based upon included the proposed SPLT model (Margolis et al., 2016, p. 7). The SPLT model is the main basis for the theoretical framework to further explore how components of various model levels—coupled with varying levels of student physical presence—impact teachers’ perceptions of TPD in terms of the authenticity, usefulness, and application of TPD learning. The following section explains the SPLT model and how it applies to TPD learning experiences.

### 2.3.1 Theoretical Framework: Student Presence and Learning Theory Model

Theory Behind TPD Event:	Level 1 - Outside Expert Presents Ideas	Level 2 - Insider Presents Ideas through Narrative	Level 3 - Insider Presents Ideas through Narratives and Artifacts	Level 4 - Insider Presents Ideas through Visual Demonstrations	Level 5 - Insider Guest Teaches	Level 6 - Insider Conducts Planned, Episodic Studio Classroom	Level 7 - Insider Conducts Ongoing Studio Classroom
Sociocultural – school culture emphasizes teacher experimentation and learning from practice					High student presence	<ul style="list-style-type: none"> <li>➤ Lesson Study<sup>9</sup></li> <li>➤ Learning Walks<sup>10</sup></li> <li>➤ Partner-teachers visit to each other's classrooms<sup>11</sup></li> </ul>	➤ A teacher or TL hosts an ongoing studio classroom that includes dialogue about practice <sup>12</sup>
Situated Learning – teacher learning is situated in authentic teaching experiences			Moderate student presence		➤ Teacher or TL models a lesson in another teacher's classroom <sup>8</sup>		
Social Learning Theory – teachers learn within groups embedded in the school context	Low or no student presence		<ul style="list-style-type: none"> <li>➤ Teachers share experiences and student work<sup>4</sup></li> <li>➤ Teachers are organized into PLCs<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>➤ Teacher models a lesson at TPD day<sup>6</sup></li> <li>➤ Teacher models a lesson using a video of own classroom<sup>7</sup></li> </ul>			
Constructivism – teachers learn by connecting new knowledge with previous experiences		<ul style="list-style-type: none"> <li>➤ Teacher presents ideas rooted in personal classroom experiences<sup>2</sup></li> <li>➤ Online virtual communities<sup>3</sup></li> </ul>					
Behaviorism – the administration delivers instructional material through formal channels	<ul style="list-style-type: none"> <li>➤ External consultant or school administrators present new approaches<sup>1</sup></li> </ul>						

Figure 4. Enlarged View-Student Presence and Learning Theory Model (*Margolis et al., 2016, p. 7*)

The SPLT (Margolis et al., 2016, p. 7) shows a continuum of theories and TPD activities that contain varying levels of student physical presence. On the left side of the model, the first column shows the theories of teacher learning that may guide the forms of TPD that the teachers are experiencing (Margolis et al., 2016, p. 30). Looking from the top down, the theories which are more job-embedded are located towards the top rows of the model; those which are more behaviorist forms of TPD are closer to the bottom (Margolis et al., 2016). From left to right across the first row at the top of the model, there are seven categories of approaches to TPD, which correspond with progressively more complex theories of teacher learning. As you move across the model, these approaches move away from being facilitated by classroom outsiders to more job-embedded experiences, which are increasingly student inclusive (Margolis et al., 2016, p. 30). According to the authors, “Student inclusivity is represented in the model by specific TPD structures (in the green boxes) and the corresponding point on the arrow indicating level of ‘student presence’” (Margolis et al., 2016, p. 30). The more situated and job-embedded the activity is, the higher the level of student physical presence is attained (Margolis et al., 2016).

This study aims to explore as many TPD activities as possible that incorporate varying levels of student physical presence. The main intention of the study is to shed light on the model’s theory and applicability to TPD planning using the collected teacher perceptions of TPD experiences and combined with detailed field notes that described the use of varying levels of physical presence. To do this, the study explores whether or not more student presence equates to both improved teacher perceptions of TPD and an increased teacher application of TPD in the classroom setting.

### **2.3.3 Theoretical Applications to the Current Study**

For this study, it is crucial to explore the data with both the SPLT model and its relevant learning theories. The learning theories in the SPLT model influence the ways in which TPD is presented to the teacher-learner. These have a potential impact on the teacher perceptions because as learners, they may have a preferred presentation style for TPD. In particular, the discussion in this study explores how behaviorism, constructivism, social constructivism, and situated and sociocultural learning theories impact teacher perceptions at the corresponding SPLT model level. Since the study's main goals are to explore the impact of delivery mode and student physical presence, the learning theories presented within the model levels is the main framework through which the study explores the data.

In most cases in this study, the SPLT model is being used as framework to explore existing phenomenon in school district TPD. The school districts that participated had already established their TPD plans for the year and allowed the researcher to explore what they offered at various levels of the model. There were a few exceptions to studying only what was already in existence in the district plans:

1. The level 6 tier time session-This session was designed and arranged by building principals and funded by the researcher.
2. The studio classroom model-The session was designed in collaboration with the instructional coach, the technology coach, and the researcher.
3. The online grade level PLC- The session was designed by the researcher and a team of technology coaches. The grade level, participants, and

content were mandated by the district technology director and technology coaches. The researcher created the online environment in the Schoology LMS platform used by the district.

In these instances, it could be said that the model was being studied because the researcher was able to have some control over the session design. However, a majority of the design was still mandated by the school district. With this in mind, the model was used as more of a framework to study existing TPD experiences and plans.

## Chapter 3

### Methodology

The research questions, setting, and aims of this study are best suited to a qualitative research methodology. The reason for this is, the idea of gathering teachers' perceptions on TPD sessions in order to explore the SPLT model is not something that could be given a quantitative value. In order to obtain more specific information about each delivery method, the voices of the teachers needed to be shared in their own words. As stated by Mack, Woodsong, MacQueen, Guest, & Namey (2005),

The strength of qualitative research is its ability to provide complex textual descriptions of how people experience a given research issue. It provides information about the “human” side of an issue—that is, the often contradictory behaviors, beliefs, opinions, emotions, and relationships of individuals. (p. 1)

This present study aims to answer questions about the perceptions that teachers had of TPD at varying levels of the SPLT model and with varying levels of student physical presence. The perception of each TPD session is the *human* side of TPD that plays into their classroom practice and planning. The data shared in the results section represent the human voice and perceptions from practicing educators in the field of public education.

With the many varieties of TPD delivery plus the various data showing the strengths and weaknesses of these activities, it is important to identify and examine more closely the aspects of TPD that are more meaningful to educators. The study employs qualitative data collection methods—or more specifically participant observation, surveys, interviews, and focus groups. The study not only explores the topic from the teacher's perspectives, but it also explores the largely unexamined component of student



physical presence in TPD. In taking into account the history of TPD successes and failures and the lack of exploration in how student physical presence impacts TPD sessions, I propose the following research questions and methodology.

### **3.1 Research Questions and Methodological Ties**

#### **3.1.1 Research Questions**

In order to better focus the aim of the data analysis, the initial research question's themes were combined for the analysis. Under this main question, the study identified four themes needed to be analyzed, and many of the original research questions were explored in a more focused way.

##### ***Research Question and four main parts:***

*How do TPD delivery methods and student presence at various levels of the SPLT model impact teachers' perceptions of professional learning experiences in the areas of:*

- 1. Authenticity*
- 2. Usefulness*
- 3. Application*
- 4. Impact/Role of Technology*

#### **3.1.2 Methodological Ties**

The nature of a school district TPD lends itself to choosing a method that immerses the researcher in the TPD experiences. This immersion calls for the need to collect data that describe the set-up, locations, materials, activities, delivery methods, and the interactions that occurred. Such a need would naturally position the researcher to become a participant observer.

The researcher participated in the TPD sessions with the practicing teachers in order to become part of the activity. During the participation, the researcher simultaneously made observations on the activities, teacher actions and interactions, as well as the presented information and student presence artifacts. The need to collect teacher perceptions was warranted by the research questions, and these perceptions were collected through the use of anecdotal observations, online surveys, face-to-face interviews, and a focus group session. These data sources were combined with the participant observation data in order to triangulate the data and allow the researcher to draw some conclusions in terms of the research questions.

## **3.2 Participant Observation**

### **3.2.1 Introduction to Participant Observation**

Participant observation is a qualitative research method that draws from ethnographic research (Mack et al., 2005, p. 13). Participant observation is described by Dewalt and Dewalt (2011) as “a method in which a researcher takes part in the daily activities, rituals, interactions, and events of a group as one of the means of learning the explicit and tacit aspects of their life routines and culture” (p. 1). The purpose of this form of research is to collect perspectives, or perceptions, of populations (Mack et al., 2005, p. 13). According to Spradley (2016), “Participation allows you to experience activities directly, to get the feel of what events are like, and to record your own perceptions” (p. 51). Spradley (2016) also explained that the participant observer has two main purposes—to engage in the activities and to observe the people, activities, and physical environment of the situation (Spradley, 2016, p. 54). In other words, in search of

data that addresses the research question, the researcher needs to act in the role of a participant observer.

To form a complete picture of the TPD activities along with anecdotal information about the session, the researcher became a part of the teacher community and experienced the TPD along with the participants of the study. The methods of participant observation lent themselves to the collection of data in the participants' natural setting while the ethnographer observed or took part in the activities of the group being studied (Dewalt & Dewalt, 2011, p. 2).

For this present study, the goal of the researcher is to participate equally with the teacher participants in order to be fully immersed in what was occurring in the sessions. Participant observation takes place in a setting that has relevance to the research questions being explored, and it brings the researcher to the participants, in contrast to the participants coming to the researcher (Mack et al., 2005, p. 13). Naturally, this meant that the researcher needs to attend district TPD sessions in the actual schools and administrative offices of the school districts. The researcher's goal is to participate in the setting to get an insider view while remaining an outsider (Mack et al., 2005, p. 13). According to Spradley (2016), it is necessary to have a balance of participation between moderate and active style participation (p. 60); this became part of the researcher's consideration for this present study. In this way, the researcher was able to strike a balance between being an attendee in the TPD sessions while not fully becoming a member of the group being observed (Spradley, 2016, p. 60). This type of qualitative research method was suited to a study on TPD. The researcher was immersed in many aspects of the TPD—such as TPD planning meetings, large-scale TPD sessions, and

classroom-based TPD with post conferences. Being part of the experience allowed the researcher to view the sessions from both the researcher perspective and the participant perspective. It also allowed participants to potentially interact with the researcher and view her on common ground as a participant in the experiences. In short, it is important to the study that the researcher be an active part of the teacher participant community during the TPD sessions in order to gain an inside view of the activities.

### **3.2.2 Applications of Participant Observation to Data Collection**

Dewalt and Dewalt (2011) stressed the importance that participant observation is only one of several methods of data collection (p. 127). There needs to be a combination of techniques in order to methodically triangulate the data. Other methods suggested by the authors were formal interviews, a review of documents and text, structured observations, and survey research (Dewalt & Dewalt, 2011, p. 127). These types of data sources were described by Spradley (2016) as the “ethnographic record,” or a collection of field notes, artifacts, and documents that describe the activity being observed (p. 63). According to Dewalt and Dewalt (2011), this combination of methods allows for a “cross validation of conclusions” through the comparison of the data collected in different ways and from different viewpoints (p. 127).

It is critical to the results of this study to collect data from a variety of sources and viewpoints. The cross validation of data allows the subjects’ perceptions to be shared in their own words. The observational data (i.e., field notes, session handouts, and discussion board data) are combined with these views to create a more realistic picture of the activities and to allow their voices to be heard, not the voice of the researcher.

### 3.3 Qualitative Methods in Educational Technology Research

As explained by Nørskov and Rask (2011), online observations can be used to study the interactions of people in an online forum. A variety of interaction types may be viewed in an online community, such as social interaction, sharing of experiences, and producing a product (Nørskov & Rask, 2011). In online observations, the observational data is the recorded social interaction, as shown in the written text and shared artifacts (Nørskov & Rask, 2011). The authors suggested that the most desirable role as a researcher in this type of data collection is to remain a complete observer in order to combat issues of credibility and transferability. The observation could then be coupled with survey or interview data. However, the researcher should act as less of a participant and more of an observer in this scenario (Nørskov & Rask, 2011), as seen in Figure 6.

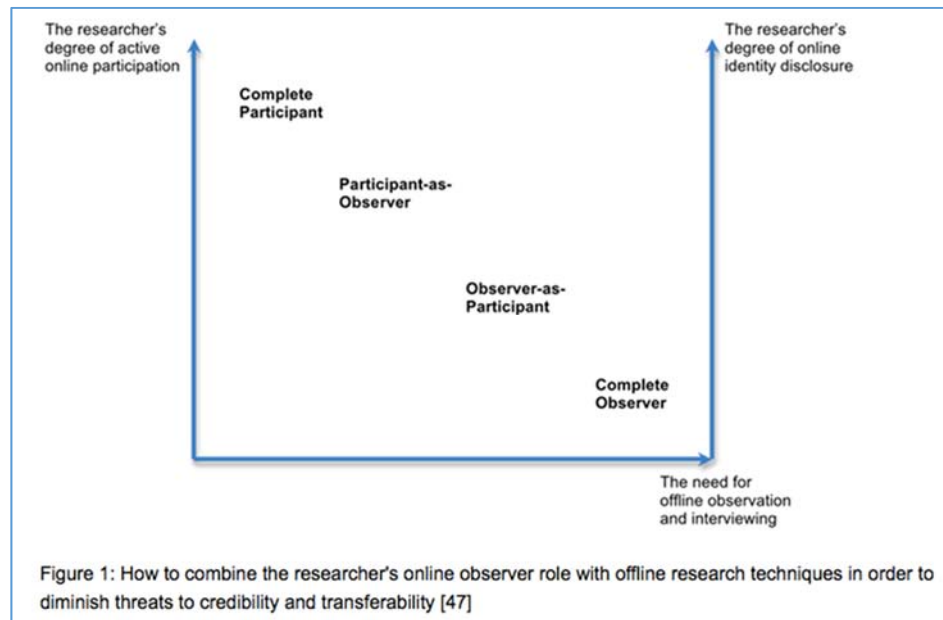


Figure 5. “How to combine the researcher's online observer role with offline research techniques in order to diminish threats to credibility and transferability” (Nørskov & Rask, 2011).

It is important to consider how researcher participation may have an impact on the interactions of the participants in an online environment. In one instance of TPD for this study, the researcher acted in more of an observer/facilitator role to allow the natural flow of the grade-level PLC to occur. The researcher was able to be *in the PLC* but avoided all comments and interactions in this specific TPD type. This helped to alleviate any concerns of transferability in the results.

### **3.4 Setting**

This study took place in two suburban school districts near Chicago, Illinois. School District 1 is comprised of approximately 4,900 students from pre-kindergarten (pre-K) through Grade 12. The district supported students with a diverse composition of cultural backgrounds with around 65% of the students being White, 2% African American, 13% Hispanic, 16% Asian, 3% mixed-racial, and less than 1% of Pacific Islander and American Indian. Approximately 24% of the student population was identified as low income and 15% were English Language Learners. Approximately 12% of the student population have identified disabilities. The student body averaged an attendance rate of over 90%. The student to teacher ratio was approximately 16:1 with an average class size of approximately 24 students. The district averaged 180 school days, and their average per pupil instructional expenditure is just over \$8,000. The district employed more than 380 teachers; more than half of the teachers in the school district had master's degrees or higher and a higher than 88% retention rate for teachers. The average salary for teachers in the school district was just over \$60,000. The administrator ratio of administrators to certified staff was 1:9; the average administrator salary for the

district was just over \$134,000. In the district at the time of the study, there were three pre-K to Grade 2 schools, three Grades 3–5 schools, and two Grades 6–8 schools.

District 2 comprised 5,393 students at the time of the study. The district supported students with a diverse composition of cultural backgrounds, with around 77% of the students being White, less than 1% African American, 7% Hispanic, 11% Asian, 3% mixed-racial, and less than 1% of Pacific Islander and American Indian. They had approximately 3% of the student population identified as low income and 9% are English Language Learners. Approximately 15% of the student population had identified disabilities. Students averaged an attendance rate of over 90%. They averaged approximately 175 school days and an average per pupil instructional expenditure of just under \$8,000. The district employed more than 380 teachers; more than 70% of teachers in the school district had master's degrees or higher, with a higher than 90% retention rate for teachers. The average salary for teachers in the school district was just over \$72,000. The administrator ratio of administrators to certified staff was 1:9, and the average administrator salary for the district was just over \$103,000. There was one pre-K to Grade 5 school, six Grade K–5 schools, and two Grades 6–8 schools.

### **3.5 Participants**

#### **3.5.1 Population**

The population of the study included pre-K to Grade 8 teachers and administrators in public schools. The use of public schools was an intentional choice to allow for the ability to generalize results across the current arena of U.S. public education. It was the

goal of the study to have the cross section of teachers and administrators in the setting represent the diversity and composition of U.S. schools today.

### **3.5.2 Sample**

The sample of teachers and administrators work in the public schools of suburban Chicago, IL. The sample is a purposeful sampling of teachers and administrators actively engaged in teaching or as acting administrators who are participating in or planning/implementing professional development activities of varying kinds.

On the whole, the participants varied in terms of age range, gender, and years of professional experience. There was also some snowball sampling due to the sharing of the project with neighboring schools who wished to participate in the study. Being a primarily qualitative study, this research had a projected size of 20–50 participants so that individual cases as well as larger trends could be explored. The projected size was only an estimate, given that the sizes of the two participating school districts were quite large (around 900 teachers and administrators), and there was no accurate way of predicting who would decide to participate in the activities. It was also difficult to obtain a total participant number due to the anonymity of the survey and the participants' ability to opt in and out of several research activities; these activities included TPD session opportunities followed by surveys and individual interviews. Some participants may have only completed one training activity and a survey, while others may have participated in several surveys, interviews, and focus groups.

This ability to opt in and out of activities allowed teachers to determine their own participation level. This model allowed the same participant to participate in several study activities. A benefit to this model was that teachers have much more control of how



much they wished to participate without actually dropping out of the study. They were invited to multiple TPD activities and interviews; for each instance of participation, they were sent separate invitations to participate, and these single invitations allowed them to select their level of participation in the study. The hope was that this would bolster participation, as there was no long-term commitment—just multiple offerings of opportunities throughout the school year. One drawback to this type of invitation method was that there is no actual way to count a total number of participants. Each activity was completely anonymous in terms of the data collected. This means that some participants may have participated multiple times. There was no way to control for this or any way to keep count of this repeated participation due to the anonymity of the survey tools. Thus, a count of instances of participation is given, as some participants may have completed multiple activities throughout the study. This could be considered a limitation in terms of the results, but it did give teachers more flexibility in their level of participation, which ultimately may have resulted in gaining more data.

### **3.5.3 Participation Rates and Sample Demographics**

There were a total of 80 instances of participation (i.e., surveys, interviews, and focus groups); 54 surveys were collected following a participant observed TPD session. Based on the completion of the post-TPD survey by the teachers, they were able to opt into future research activities, such as interviews and end-of-the-year follow-up surveys. Other statistics for the study include 14 one-on-one interviews, one focus group session with five participants, and seven end-of-the-year follow-up surveys. Of the 80 instances of participation, 11 were from district 1 and 69 were from district 2 (Survey Data, 2016-2017; Interview Data, 2017).

The total number of teachers who participated cannot be calculated exactly. However, based on the design of subject recruitment, it can be estimated that there were at least 54 different teachers who participated in the study. Within the approximately 54 teachers who participated, it can be estimated that 9 of these participants were from district 1 and 45 were from district 2. It must be noted that these teachers may have completed more than one activity in the study. This means that the actual number of total participants could vary, as each activity was anonymous and not all participation was able to be linked to previous instances of participation in order to preserve the participants' anonymity (Survey Data, 2016-2017; Interview Data, 2017).

The teachers who participated in the study were all employed by suburban Chicago public school districts. The following demographic information was compiled from the post-TPD surveys and from the interview data. All participants completed one or both of these data collection activities, so the demographics of the entire sample (in terms of instances of participation) is included in the following representations.

**Table 1**

*Participants in Each Age Range*

Participant Ages	
PARTICIPANT AGE GROUP	# IN AGE GROUP
21-29	11
30-39	27
40-49	8
50-59	27
60 +	1
Unreported	6

Data Source: (Survey & Interview Respondent Data exported from SurveyMonkey, 2017)

**Table 2***Participant Gender*

Participant Gender	
GENDER	# OF PARTICIPANTS
Male	16
Female	59

Data Source: (Survey & Interview Respondent Data exported from SurveyMonkey, 2017)

\*Some participants did not report their gender.

**Table 3***Participant Grade Level or Position*

Participant Grade Level or Position	
PARTICIPANT GRADE LEVEL/POSITION	# IN EACH CATEGORY
Kindergarten	7
Grade 1	7
Grade 2	15
Grade 3	4
Grade 4	3
Grade 4/5 Multiage	1
Grade 5	10
Grade 6	2
Grade 6/7 Multiage	1
Grade 7	4
Grade 8	4
Instructional Coach	3
ELL Instructor	1
Librarian/LMC/LRC Director	1
Resource Teacher	1
Technology Coach/Facilitator	1
General Education- Unspecified	10

Data Source: (Survey and Interview Respondent Data exported from SurveyMonkey, 2017)

\* Some participants did not designate a grade level or subject area.

**Table 4**

*Participant Levels of Education*

Participant Levels of Education	
HIGHEST DEGREE ACHIEVED	# OF PARTICIPANTS
Bachelors Degree	16
Graduate Level Degree	59
Unspecified Level of Education	5

Data Source: *(Survey & Interview Respondent Data exported from SurveyMonkey, 2017)*

### **3.6 TPD Session Overview**

In this section, the types of TPD sessions are described in more detail. Since the delivery and content of TPD district goals is typically determined by the training needs of the teachers and by needs of the school district, it was initially unclear how many levels of the model would be explored in the data collection. The sessions in which the participating school districts allowed the researcher to become a participant-observer varied. In any case, all seven levels of the model were able to be observed and surveyed.

In terms of the TPD sessions, approximately 15 sessions were completely self-selected by the participants from district offered options throughout the school year. These sessions occurred at model levels 2-7, including the level 3 technology-delivered session (Observational Field Notes, 2016-2017). Some sessions, 3 in total, were self-selected from a list of TPD options, but occurred on mandatory school district professional development days. These 3 sessions occurred at levels 2 and 4. The remaining 3 sessions explored in the study were mandated by the school district, in which teachers were required to attend. These 3 required sessions occurred at model levels 1, 2, and 3(Observational Field Notes, 2016-2017).

The following section gives more general information on the components of the TPD sessions that occurred at each level. Following the data collection phase, an in-depth description of each session for each SPLT model level was added from the researcher's participant observation field notes (see Appendices B–I).

### **3.6.1 TPD Sessions at SPLT Model Levels 1, 2, and 4**

In Levels 1 and 2 of the model, commonly seen activities include more behaviorist-centered activities. These activities remain relatively low and to the left of the model continuum. These may include lectures or presentation-style trainings that occur in one-time isolated workshops. Moreover, there is typically little to no student physical presence in these trainings. In these activities, classrooms and students are usually discussed hypothetically, including anecdotal accounts of teaching and learning. At Level 1, the information is typically presented by an outside expert brought in to deliver content to a group of teachers. Level 1 sessions are usually planned by district administrators to meet a need in terms of curriculum, pedagogy, or new technology. At Level 2, an insider (possibly a teacher or administrator) from within the organization presents to teachers based on a topic deemed needed by district administrators. The activities are typically provided in district settings, possibly on professional development days. At Level 4, the concept of this is taken a step further with an insider or outsider modeling a lesson for teachers on professional development day or sharing a video lesson of their own classroom (Margolis et al., 2016). Detailed field notes of TPD sessions for these levels are found in Appendices B, C, and E.

### **3.6.2 TPD Sessions at SPLT Model Level 3**

In this level of the model, teacher collaboration is the key. Teachers may be participating in grade-level sharing of student work. They may be having conversations about working with students and using the discussion to critically evaluate the lesson content and delivery. They may also be working in a PLC format. This could be organized in a variety of ways, but ultimately it should be grouped in a way that allows the teachers to discuss material that is relevant to all who participate—such as by the grade level or by the content. They could be engaged in a variety of activities where they collaborate and discuss topics such as student work, lesson content and delivery, grade-level standards and curriculum alignment, classroom management skills, or other content that is pertinent to the group collectively (Margolis et al., 2016). Detailed field notes of TPD sessions for this level are found in Appendix D.

### **3.6.3 TPD Sessions at SPLT Model Level 5**

This level involves entering the school setting in more of a job-embedded way, and it correlates to the category of situated learning theory. This TPD activity can involve a teacher or coach modeling a lesson in another teacher's classroom within the school environment. This idea of modeling as a form of TPD can occur in a variety of content and grade levels, and it could be done by peer teachers, coaches, technology specialists, or other facilitators (Margolis et al., 2016). Detailed field notes of TPD sessions for this level are found in Appendix F.

### **3.6.4 TPD Sessions at SPLT Model Level 6**

This level of the SPLT model also highlights the use of job-embedded forms of TPD and correlates to the situated and sociocultural learning theories. It includes TPD

activities such as lesson study activity, learning walks or instructional rounds, and peer teachers visiting and observing each other's classrooms. Teachers should be *in* the school environment—specifically in the physical presence of students and engaging in TPD during the school day (Margolis et al., 2016). In this study, the sessions observed for this level were categorized by the design and location of the TPD sessions, which were all in schools on typical school days when students were physically present. Detailed field notes of TPD sessions for this level are found in Appendix G.

### **3.6.5 TPD Sessions at SPLT Model Level 7**

In this level of model, the focus is on sociocultural theory and is embedded in daily school practice. A prime example of this type of TPD is having an on-going studio classroom. In the studio classroom model, a teacher teaches a lesson to actual students while a group of teachers observes the lesson. They would then meet following the lesson to discuss, debrief, and analyze the lesson to engage in a dialogue about the actual practice of teaching (Margolis et al., 2016). In the case of the study, no on-going studio classroom was in place in either District 1 or District 2. The studio classroom model was simulated in one session that is described in detail below. Detailed field notes of TPD sessions for this level are found in Appendix H.

### **3.6.6 Technology Enhanced or Delivered TPD**

The use of technology to deliver or enhance TPD may be seen throughout various levels of the model. Due to the varying ways in which technology can be used, the level it attains in the model was determined by the content, goals, and application of the technology. For example, if teachers use technology to enhance a TPD session—such as a video of students engaged in learning—the level may vary between 2, 3, or 4,

depending on the delivery and use of the technology. An online discussion forum would be at a lower level of the model, such as Level 2. A grade-level VPLC in a school district could be fall at a Level 2, 3, or 4, depending on what was shared virtually (e.g., images of student work, anecdotal descriptions, video of a lesson). The level of a technology-delivered or enhanced TPD session was determined by the researcher through observational field notes of student presence artifacts. Detailed field notes are found in Appendix I.

### **3.7 Data Collection**

Participants were invited to participate in the study throughout the 2016–2017 school year, beginning in November 2017 and concluding in June 2017. The study involved a variety of different TPD sessions that were scheduled and selected with the guidance and approval of the schools or districts in which the TPD took place. The TPD dates, times, content, and delivery methods varied based on each school/district's strategic planning, goals, and training needs. Because of this, there was no possible way to predict the exact nature, delivery method, content, or presenters that would be observed and surveyed. In order to see TPD at each of the seven levels of the SPLT model, it was necessary to observe and survey TPD sessions at a variety of locations, delivery dates, and with a varying audience. In lieu of this need, the levels were split among the two participating districts based on a few factors, namely the administrators' guidance, the TPD goals for the year, and each districts' varying teacher needs. One of the main goals of the research is to include TPD sessions that occurred at each level of the model. The researcher was able to attend and survey at least one session at each level



in at least one of the participating schools/districts. District 1 held more sessions at the lower level model sessions (1–4), while District 2 held sessions at all model levels (1–7).

Data was collected by the researcher through a variety of means including observational field notes, collection of handouts/artifacts, surveys, interviews, and focus groups. As mentioned, the researcher acted as a participant observer throughout the study. During each professional development session, the researcher was present to take anecdotal and observational notes on the sessions. Table 5 shows the manner in which participants were invited to participate, which the data collection method was used, how anonymity was preserved, how informed consent was obtained, and how the data were secured.

**Table 5**

*Data Collection Summary*

Data Sources	Recruitment Method (See sample in figure 12)	Collection Method	Anonymity	Informed Consent (See figure 7)	Securing Data
Post TPD Survey (See figure 8)	<ul style="list-style-type: none"> <li>paper flyer</li> <li>e-mailed flyer</li> </ul>	<ul style="list-style-type: none"> <li>Online survey in SurveyMonkey</li> </ul>	<ul style="list-style-type: none"> <li>SurveyMonkey automatically de-identifies participants</li> <li>No names linked to surveys</li> <li>Raffle &amp; future interest contact info were collected in a separate link</li> </ul>	<ul style="list-style-type: none"> <li>Electronically required to consent before accessing the survey</li> </ul>	<ul style="list-style-type: none"> <li>Password protected in SurveyMonkey Online, DropBox, &amp; researcher's computer</li> </ul>
End-of-Year Survey (See figure 9)	<ul style="list-style-type: none"> <li>opted-in during online survey</li> <li>followed by e-mail flyer invitation</li> </ul>	<ul style="list-style-type: none"> <li>Online survey in SurveyMonkey</li> </ul>	<ul style="list-style-type: none"> <li>SurveyMonkey automatically de-identifies participants</li> <li>No names linked to surveys</li> <li>Raffle &amp; contact info was collected in a separate link</li> </ul>	<ul style="list-style-type: none"> <li>Electronically required to consent before accessing the survey</li> </ul>	
Interview (See figure 10)	<ul style="list-style-type: none"> <li>opted-in during online survey</li> <li>followed by e-mail flyer invitation</li> </ul>	<ul style="list-style-type: none"> <li>Responses typed directly into an online form in SurveyMonkey during the interview</li> </ul>	<ul style="list-style-type: none"> <li>SurveyMonkey automatically de-identifies participants</li> <li>No names linked to surveys</li> <li>Raffle &amp; contact info was collected in a separate link</li> </ul>	<ul style="list-style-type: none"> <li>Paper consent was signed before conducting interview</li> </ul>	
Focus Group (See figure 11)	<ul style="list-style-type: none"> <li>Invited by Instructional Learning Coach</li> <li>Paper and electronic flyer given</li> </ul>	<ul style="list-style-type: none"> <li>Responses typed directly into the focus group protocol during the focus group session</li> </ul>	<ul style="list-style-type: none"> <li>No names were used in the session notes</li> <li>Names were replaced with T1, T2, T3, T4, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Paper consent was signed before conducting focus group</li> </ul>	
Online Session <i>LMS delivered Grade Level PLC</i> (See figure 8)	<ul style="list-style-type: none"> <li>Invited by Technology Director</li> <li>Grade level selected by Technology Facilitators and Technology Director</li> <li>E-mail flyer invitation</li> </ul>	<ul style="list-style-type: none"> <li>Online survey in SurveyMonkey</li> <li>Online Session Observational Field Notes</li> </ul>	<ul style="list-style-type: none"> <li>SurveyMonkey automatically de-identifies participants</li> <li>No names linked to surveys</li> <li>Raffle &amp; future interest contact info were collected in a separate link</li> </ul>	<ul style="list-style-type: none"> <li>Electronically required to consent before accessing the online PLC site and again before the survey</li> </ul>	
Observational Field Journal	N/A	<ul style="list-style-type: none"> <li>Handwritten in researcher field notebook during TPD Sessions</li> <li>Session Handouts</li> </ul>	N/A	N/A	<ul style="list-style-type: none"> <li>Stored in file box with a combination lock</li> </ul>
Reflective Field Journal	N/A	<ul style="list-style-type: none"> <li>Handwritten in researcher reflective notebook after TPD Sessions</li> </ul>	N/A	N/A	<ul style="list-style-type: none"> <li>Stored in file box with a combination lock</li> </ul>

### 3.7.1 Incentives and Total Budget

A grant proposal was written to the Department of Instructional and Leadership in Education at Duquesne University for this doctoral study. To ensure participation and the observation of all model levels, the funding for the school districts involved and incentives for teacher-participants were warranted. The following incentives were given to teacher participants.

**Table 6**

*Incentive Breakdown*

- Surveys following PD Session: Enter to win a 25\$ gift card to Amazon.com or iTunes (Winner's choice- 4 winners per teacher survey for each TPD Day, 2 winners per administrator survey per district/school)
- Before/After School TPD Modeling Session: 25\$ Gift card to Amazon.com or iTunes (participants choice)
- Lunch and Learn Session: 20\$ gift card to Amazon.com or iTunes (participants choice) and lunch provided
- Individual Interview: 25\$ gift card to Amazon.com or iTunes (participants choice)
- Focus group: 20\$ gift card to Amazon.com or iTunes (participants choice)
- Online Session/training & follow up Survey: 30\$ gift card to Amazon.com or iTunes (participant's choice)
- Push-In Session and Follow Up Survey/Interview: 25\$ gift card to Amazon.com or iTunes (participant's choice)
- Studio Classroom Session and follow up/Survey Interview: 25\$ gift card to Amazon.com or iTunes (participant's choice)
- Follow-Up Survey (end of School Year): Enter to win a 25\$ gift card to Amazon.com or iTunes (Winner's choice- 4 towards end of school year for teachers in each district/school)

*Source: Participant Informed Consent form, 2016-2017*

In addition to these incentives, money was provided to the school district to fund substitutes when the TPD activity required teachers to be out of their classrooms during instructional times. Full-day or half-day substitutes were funded at \$55 or \$105 per teacher and were paid directly to the districts for SPLT Level 6 and SPLT Level 7 sessions. The total budget cost at the conclusion of the study was \$2,140 in total.

### **3.7.2 Teacher-Based Data Sources**

#### **3.7.2.a Surveys**

The researcher used surveys immediately following the sessions to collect teacher perception information about each session of professional development (see Appendix A, Figure 8). There was also a follow-up survey link that invited them to participate in a follow-up end-of-year survey to see what the perceived impact on professional practices were. The follow-up survey was given near the end of the school year to gain overall insights to the TPD the teachers have received (see Appendix A, Figure 9). The questions for all post TPD session surveys were kept the same to allow for a more consistent comparison of each type of TPD delivery and of the amount of student physical presence in order to better gauge their impact.

#### **3.7.2.b Interviews**

In-depth teacher interviews were used to further explore the research questions (See Appendix A, Figure 10). The teachers were offered the option to opt-in or opt-out of these sessions at the completion of one of the post TPD surveys that were completed in a previous session. These were completed on a voluntary basis and offered additional incentives. Textual notes were taken directly into SurveyMonkey at these sessions and were not audio or video recorded.

#### **3.7.2.c Focus Groups**

A focus group session was completed by the researcher, and it took place in a school building and in a classroom selected by the school/district. The focus group consisted of five teachers and the researcher, and the session followed the focus group protocol created by the researcher. During the session, the researcher took written notes directly into the password-protected lap top and led the discussion as a moderator. Paper consent forms were signed prior to

the start of the discussion; the norms for the group are described in the protocol (See Figure 11 in Appendix A). All gift card incentives for participation were given at the immediate conclusion of the focus group session.

#### **3.7.2.d Studio Classroom Debrief**

During the debriefing session, the five teachers were led through a discussion of their observations and their thoughts, and the session was guided by the instructional coach and the technology facilitator. In the previous section, figures were shared that contained a transcript of the conversation recorded directly by the researcher into a laptop computer in Microsoft Word (see Figures 13, 14, and 15). The transcript of the post discussion was then de-identified and shared as figures and also cited as sourced of data in relevant areas in Chapter 4 (Field Notes, 5-22-17, pp. 46–47).

#### **3.7.2.e Online Discussion Board Data**

The online discussion board data were observed; screen shots of the teacher interactions were analyzed by the researcher and then translated into observational notes similar to those kept in the face-to-face TPD activities. These results and text are used as part of a thematic analysis of the TPD session; they are housed on the researcher's password-protected laptop and password-protected drop box for the next 5 years. The screen shots were transcribed, and any screen shots that contain teacher identifiers will not be used in study-related publications or documents. Screen shots of the layout and setup of the online TPD session were taken prior to any teacher interactions or exchanges to protect the anonymity of the participants. The data collected in this online format includes the number of participants, the discussion content, the frequency and type of student presence artifacts shared by teachers, and the frequency of participation. The participants were also invited to conduct a post-TPD session survey (see Figure 8). These items

allowed for a better cross-comparison with survey data for improved reliability and transferability.

### **3.7.3 Researcher-Based Data Sources**

The researcher attended various types of professional development sessions in the schools that chose to participate as a participant observer. The sessions varied widely in content and delivery methods, both of which were based on the needs and district goals for the school year. Some sessions were supported by the researcher through funding or through design support at the request of the school administration, or even both. These sessions were approved and offered to teachers with the school's administrative approval. Furthermore, the researcher used qualitative research methods that include participant observation during the professional development sessions. The observations include relevant anecdotal narratives of the sessions, descriptions of the setting, activities, materials, and presentation. The notes contain anecdotal information and notes on formal and informal conversations that occurred during the TPD session. The researcher also used a reflective journal in support of keeping personal bias out of the observational and teacher data sources.

## **3.8 Data Analysis**

### **3.8.1 Preliminary Data Analysis**

The initial data analysis was done using the internal tools included in the SurveyMonkey data software. All focus group data was entered as textual data into Microsoft Excel. All survey data and interview transcripts were transcribed directly into SurveyMonkey, and the textual data to analyze was housed in SurveyMonkey prior to data analysis. The data was filtered by each individual session of TPD and then coded to determine which delivery type and model level it

belonged to based on a combination of observational notes by the researcher. It was then exported for use in the qualitative data analysis software Atlas.ti version 1.6.0.

### **3.8.2 Main Data Analysis**

The data was “indexed” and “coded” by categories that have their foundations in the theoretical framework, which includes the SPLT model and andragogical principles, and those emerge from the data (Dewalt & Dewalt, 2011, p. 183). In the context of this study, *indexing* refers to the process of creating categories from the initial theoretical framework to support retrieval of data for future analysis (Dewalt & Dewalt, 2011, p. 182–183). The researcher used this process to identify themes that come directly from the observations and information captured in the field notes, surveys, focus groups, and interviews (Dewalt & Dewalt, 2011, p. 182). In this process, the researcher reduced the data by looking for themes and patterns that emerged (Dewalt & Dewalt, 2011, p. 182). The first step in the process was creating a code list with the selection of indexing codes (Dewalt & Dewalt, 2011). These indexing codes corresponded directly to the ideas presented in the theoretical framework, essentially the levels presented in the SPLT model (Margolis et al., 2016, p. 7). As themes emerged, more codes and code groups were created to further explore the perceptions of the teacher-participants as related to the main research question and its four main parts.

**Table 7***Student Presence and Learning Theory Model Coding Scheme*

<b>Student Presence Level</b>	<b>Indicators</b>	<b>Code</b>
Level 1/Behaviorism	<ul style="list-style-type: none"> <li>• Presenter is an administrator</li> <li>• Presenter is an external consultant</li> <li>• Discussion indirectly involves students</li> <li>• Little or no student presence</li> </ul>	L1
Level 2/Constructivism	<ul style="list-style-type: none"> <li>• Presenter is a teacher.</li> <li>• Classroom experiences are discussed or shared</li> <li>• Attempts are made to connect teachers with prior knowledge</li> <li>• Low level of student presence</li> </ul>	L2
Level 3/Social Constructivism	<ul style="list-style-type: none"> <li>• Teachers collaborate and share student work</li> <li>• Classroom experiences are discussed or shared</li> <li>• PLC model activities</li> <li>• Online PLC model activities and teacher sharing of student work and experiences</li> <li>• Student presence includes work samples and anecdotal stories of student experiences</li> </ul>	L3
Level 4/ Social Learning Theory	<ul style="list-style-type: none"> <li>• A teacher models a lesson or tool in the TPD session</li> <li>• A video of a lesson is used in instruction</li> <li>• Student presence includes video of actual classroom instruction.</li> </ul>	L4
Level 5/Situated Learning Theory	<ul style="list-style-type: none"> <li>• Teachers or teacher leader models a lesson in another teacher's classroom</li> <li>• Occurs in the school setting</li> <li>• Students are physically present in the TPD session</li> </ul>	L5
Level 6/Situated Learning Theory	<ul style="list-style-type: none"> <li>• Teachers take learning walks in the school</li> <li>• Teachers observe peer teachers in the classroom</li> <li>• Students are physically present in the TPD session</li> <li>• Learning is from seeing actual teaching in practice</li> </ul>	L6
Level 7/Sociocultural	<ul style="list-style-type: none"> <li>• School has set up a model classroom</li> <li>• Teachers observe lessons in the model classroom with students</li> <li>• Students are physically present in the TPD session</li> <li>• Learning is from actual teaching practice</li> </ul>	L7

The initial coding was completed mostly by hand through an examination of all data sources for the coding indicators. The next phase involved a thematic analysis with the use of software that allowed for the discovery of more themes in the textual data. This was done with the help of the qualitative data analysis software Atlas.ti. In terms of coding, the data were analyzed in order to look for underlying meanings, understandings, and themes/patterns that emerged in the process of the data analysis (Dewalt & Dewalt, 2011 p. 183). This was done with what Dewalt and Dewalt (2011) described as coding for themes (p. 188). It was important to



explore the data for patterned responses that captured the teachers' perceptions of the various delivery methods and the impact of the incorporation of student physical presence into TPD sessions. This was done through an exploration of all the data from each TPD session, looking for gradually emerging recurrent ideas, words, and concepts (Dewalt & Dewalt, 2011, p. 188–189). From this analysis, themes emerged from the data, and a closer examination of the data was made possible under these themes (Dewalt & Dewalt, 2011, p. 189). Once the data were explored, the common themes and characteristics were applied to each part of the research question to derive conclusions about the questions posed.

Kuckartz (2014) highlighted a similar process for a thematic analysis of text, which explains more specifically the methods that utilize computer-enabled qualitative data analysis software (QDA), similar to Atlas.ti (p. 109). The process described by Kuckartz informed the phases of analysis used in this study and are outlined in the tables below. The initial coding process described here was used in Step 5 of the data analysis process (see Table 9). The second phase of the computer-enabled thematic analysis was guided by the steps shared by Kuckartz, and these steps are outlined in Table 10.

**Table 8**

*Initial Computer-Enabled (QDA Software) Data Analysis Process by Kuckartz (2014)*

**Table 5.2 Using QDA Software for Thematic Qualitative Text Analysis**

Phase	Computer Assistance
Initial work with the text	<p>You can highlight important text passages and code them. You also can automatically search for certain words or phrases. You may write memos and comments and link them to text passages, to the entire text, or to categories. Text passages can be linked together, for example, if they are similar or contradictory, etc. You also may link text passages with external documents to provide a broader context for the analysis.</p> <p>You can compose case summaries and save them as memos linked to the text.</p>
Develop main thematic categories	<p>You can select text passages with the mouse and assign codes (or labels). The codes can be grouped or combined into more abstract categories. Descriptions and definitions of categories should be recorded in code memos.</p>
First coding process (using main categories)	<p>You should sequentially work through each text line-by-line and assign your main categories to relevant text passages.</p>

*Source: Kuckartz (2014) p. 109*

**Table 9**

*Phase 2-Computer-Enabled (QDA Software) Data Analysis Process by Kuckartz (2014)*

Phase	Computer Assistance
Compile all of the text passages assigned to the main categories	Using the text retrieval function, all of the text passages that have been assigned to a given main category can be summarized into a list that may be printed or saved as a DOC-file or spreadsheet. Standardized data (such as socio-demographic characteristics) can be used for selecting, grouping, and contrasting the categories.
Inductively define sub-categories based on the data	You can develop sub-categories for each of the main categories directly based on the data. As before, you should record these definitions as code memos and add typical examples to the category descriptions. Then, you can create coding guidelines for the category system that you have constructed.
Second coding process (using the elaborate category system)	You should now go back through all of the text passages that have been coded with the main categories in order to assign them to the constructed sub-categories. Modify the case summaries as necessary based on the main categories and sub-categories and record them again as memos.
Analyse and present the results Part 1: Category-based analysis	The text retrieval function allows you to compile the text passages that have been assigned to a category or sub-category and determine the frequency with which each sub-category appears. This allows you to analyse any overlaps between the categories and sub-categories. Selective text retrievals enable you to compare sub-groups of your data.
Analyse and present the results Part 2: Relations, visualizations and tables	Visual representations show the presence and, if desired, the frequency of the thematic categories broken down by text. Diagrams present the proximity of categories and sub-categories (and any overlaps between them). The thematic progression of an interview can be displayed as 'codeline'. In the case of group discussions, the sequence in which the speakers spoke and the topics of each of their contributions are displayed. Concept maps and diagrams visualize the relationships between the categories and present the hypotheses and theories developed during the analysis (e.g. in the form of causal models). During the analysis process, you can integrate the memos into the corresponding sections or chapters of the research report.

*Source: Kuckartz (2014) p. 109*

Based on the methodology outlined by Dewalt and Dewalt (2011) and Kuckartz (2014), a thematic data analysis was completed on the text collected from the various data sources. An Atlas.ti training manual was also consulted, and it provided guidance in terms of the program capabilities and functions that support these methods of thematic analysis (Frieze, 2015).

### **3.8.3 Detailed Steps of Data Analysis Process**

The following is a description of the detailed steps taken to prepare for analyzing the data that were collected during the study:

1. The researcher's field notebooks were hand coded to show which TPD sessions occurred at each level of the model based on both the SPLT model criteria for levels and the observed content and components of the TPD session. The researcher used this information to electronically code the session participants into their correct TPD levels during the import of the Excel files to Atlast.ti. This allowed the researcher the flexibility to sort the data by SPLT TPD levels during the analysis and also to identify participants later in the analysis by the levels experienced.
2. The initial hand review of the electronic data collection was completed, which included a review of all survey and interview entries to ensure that there were no empty surveys being exported. Five surveys were opened, but no questions were completed past the consent form. These surveys were deleted from the system, as they contained no data. They may have been opened and the participant decided to return to complete the survey later or not at all, which would yield these blank forms. This deletion was done in SurveyMonkey online prior to exporting the data into spreadsheets.
3. The data for each collection type (i.e., Post PD Survey, Interview Collection Form, End-of-Year Survey, and Focus Group Protocol) was exported from the online collectors in SurveyMonkey into Microsoft Excel spreadsheets. Following the export, the spreadsheets had to be formatted to be properly accepted by the Atlas.ti software.
  - a. The process of putting the data into the spreadsheet and then formatting it to match the requirements for Atlas.ti spreadsheet imports was completed by hand in

Microsoft Excel. This involved adding the correct prefix and symbols to the spreadsheet data to ensure that it came into the program in a meaningful and usable way (see prefixes used in Table 9).

- b. All multiple choice questions had to be combined into one column in Microsoft Excel for it to be properly imported in Atlas.ti. The moving of these items into one column for each question was done by hand in Microsoft Excel.
- c. The focus group responses from the Word document—in which they were collected during the focus group session—were copied and pasted into an Excel spreadsheet for easier import into Atlas.ti. These also were arranged with correct prefixes for import.
- d. Participant IDs were also edited to have an alphanumeric identifier that illustrated to the researcher which session and research activity the teacher participated in, but the identifier does not link the participants in any way to their actual names or identities. This was done prior to the Atlas.ti import; the collectors for all surveys were grouped into one file, but they were grouped by collector to allow the session they attended to be identified. These identifiers, which were originated by SurveyMonkey, were edited to show which session the participant was a part of. The identifiers still allowed the participants to be anonymous, but they also allowed a closer examination of perceptions in the data which could be explored by TPD sessions and SPLT model levels. Their names and identities were never collected to allow participants anonymity.

**Table 10**

*Atlas.ti Prefix List:*

Prefixes and their interpretation	
Prefix	Result
!	Defines the column to list the names of the primary documents. This column can be omitted. If you do not want to provide a specific name for each document, ATLAS.ti automatically creates this column. The default name for each document is case 1, case 2, case 3 and so on.
^	Defines the column to list the primary document's author
&	Defines the primary document's date, expects ISO8601 format, see: <a href="http://www.cl.cam.ac.uk/~mgk25/iso-time.html">http://www.cl.cam.ac.uk/~mgk25/iso-time.html</a> Example: 4th of February 1995 or 1995-02-04 in ISO8601 format = YYYYMMDD = 19950204
<	Ignore this column, use to exclude stuff inserted by the survey tool
.	Creates a document group from the field name. Currently the cell needs to contain the number 1, or the words Yes or Ja to be applied. Use for single choice questions where respondents can answer yes or no (or encoded as 1 and 0). Only the responses encoded with yes/ja or 1 become part of the document group.
:	Creates a document group from the field name plus cell value. Use for single choice question like gender.
#	Creates a document group from the field name plus the actual cell value. Use for single choice questions with more than two answer options or for multiple choice questions.
	Add no prefix to all open ended questions. The text in the column header is used as code. To avoid very long code name, use a short form to indicate the question and add the full question as comment (see next row)
::	All text entered after two colons is added to the object's comment field. This can be applied to cells resulting in document groups or codes.

(Friese, 2015 p. 25, Retrieved from: <https://atlastitraining.files.wordpress.com/2015/07/atlas-ti-mac-manual.pdf> on 4-5-18)

4. Once the data were prepared properly for import into Atlas.ti and the import was completed, all sessions were combined into one project file. The workflow table shows the steps that were followed once the data were prepared. Each type of collector was added as a document to Atlas.ti in order to create one project file for exploration. In total, three documents were added from Microsoft Excel that included the survey data, interview data, and focus group data. The field notes were kept separately, as well as the researcher's reflective journal; these are to be used as a support to eliminate bias and to triangulate the data.

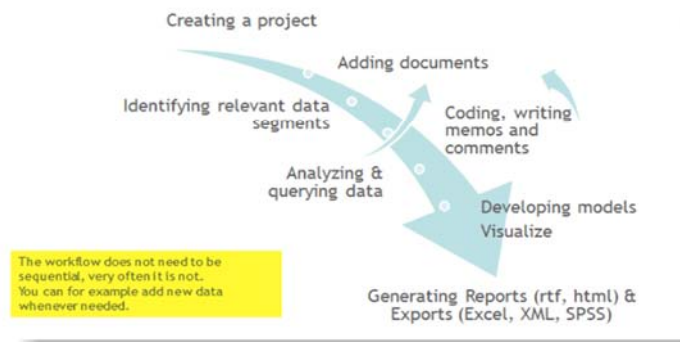
a. The data work flow is depicted in Table 11.

**Table 11**

*Data Work Flow*

## General Steps When Working With ATLAS.ti

The following sequence of steps is, of course, not mandatory, but describes a common "script:"



*Figure 2: Main work flow*

(Friese, 2015 p. 13, Retrieved from: <https://atlastitraining.files.wordpress.com/2015/07/atlas-ti-mac-manual.pdf> on 4-5-18)

- b.** The data was imported in groups (post-TPD survey, end-of-year survey, interviews, and focus group). Once in Atlas.ti, the data were arranged into a variety of document groups (e.g., demographic groups, SPLT Levels, session attended or interview); this is seen in Table 12 below.

**Table 12**

*Document Groups*

Document Groups:	Question asked/Session Attended (Collector)		
Age:21-29	What is your age range?	Years In Education:How long have you been in the field of education?:0	
Age:30-39	What is your age range?	Years In Education:How long have you been in the field of education?:1	
Age:40-49	What is your age range?	Years In Education:How long have you been in the field of education?:2	
Age:50-59	What is your age range?	Years In Education:How long have you been in the field of education?:3	
Age:60 or older	What is your age range?	Years In Education:How long have you been in the field of education?:4	
Age:60+	What is your age range?	Years In Education:How long have you been in the field of education?:5	
Collector ID:96232252	INT	Years In Education:How long have you been in the field of education?:6	
Collector ID:97690207	INT	Years In Education:How long have you been in the field of education?:7	
Collector:Collector ID:93896427	DD:RI *(Participant ID used to divide these two sessions that occurred on the same day)	Years In Education:How long have you been in the field of education?:8	
Collector:Collector ID:94569599	NTT	Years In Education:How long have you been in the field of education?:9	
Collector:Collector ID:95630904	KJWS/MLS *(Participant ID used to divide these two sessions that occurred on the same day)	Years In Education:How long have you been in the field of education?:10	
Collector:Collector ID:97245800	ALF	Years In Education:How long have you been in the field of education?:11	
Collector:Collector ID:97112640	ALF	Years In Education:How long have you been in the field of education?:12	
Collector:Collector ID:97463160	PIN	Years In Education:How long have you been in the field of education?:13	
Collector:Collector ID:97540562	TIER	Years In Education:How long have you been in the field of education?:14	
Collector:Collector ID:97701335	SCH	Years In Education:How long have you been in the field of education?:15	
Collector:Collector ID:97763467	STU	Years In Education:How long have you been in the field of education?:16	
Current Position:1st Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:17	
Current Position:2nd Grade teacher	What is your current position?	Years In Education:How long have you been in the field of education?:18	
Current Position:3rd Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:19	
Current Position:4th Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:20	
Current Position:4th/5th Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:21	
Current Position:5th Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:22	
Current Position:6th Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:23	
Current Position:6th/7th Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:24	
Current Position:7th Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:25	
Current Position:8th grade social studies teacher	What is your current position?	Years In Education:How long have you been in the field of education?:26	
Current Position:8th Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:27	
Current Position:Classroom Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:28	
Current Position:COACH/ALF	What is your current position?	Years In Education:How long have you been in the field of education?:29	
Current Position:ELL Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:30	
Current Position:Kindergarten Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:31	
Current Position:LMC Director	What is your current position?	Years In Education:How long have you been in the field of education?:32	
Current Position:Resource Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:33	
Current Position:Second Grade Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:34	
Current Position:Teacher	What is your current position?	Years In Education:How long have you been in the field of education?:35	
Current Position:Technology Facilitator	What is your current position?		
Current Position:third grade teacher	What is your current position?		
Gender:Female	What is your gender?		
Gender:Male	What is your gender?		
Highest Degree:Bachelor degree	What is your highest level of education?		
Highest Degree:Graduate degree	What is your highest level of education?		
L1 SPLT			
L2 SPLT			
L3 SPLT			
L4 SPLT			
L5 SPLT			
L6 SPLT			
L7 SPLT			
Self Selected			
Mandatory Session			

*(Exported from Atlas.ti into Numbers for Mac, 2018)*

- The data was then coded by a variety of codes to address the research question and the theoretical framework (see Table 14). The initial coding was done one document at a time in Atlas.ti. It was then repeated to ensure no missed coding occurred; this was done using the auto-code feature, specifically by looking for key words in a Grep style search with a search for all or a portion of the relevant terms that could be used by the participant in their responses. The entire response was coded for context and reference in the data analysis and results section. A search similar to the one in Table 13 was used to search for key terms from the research question and from the themes that began to emerge in the data. In Table 13, the search only yielded sentences. In the search used in this study, the paragraph extension was selected to yield the entire response or the



question that the participant was asked in order to ensure all relevant perceptions were captured (see Table 13).

**Table 13**

*Sample of Coding the Grep Search Function*



(Friese, 2015 p. 37, Retrieved from: <https://atlastitraining.files.wordpress.com/2015/07/atlas-ti-mac-manual.pdf> on 4-5-18)

**Table 14**

*Initial Code List*

Color	Name	Code Totals
Pink	A1-Learners Need to Know	101
Purple	A2-Self Concept	79
Turquoise	A3-Prior Experience	13
Light Green	A4-Readiness to learn	70
Orange	A5-Orientation to Learn	78
Light Blue	A6-Motivation to Learn	130
	Application	94
	Authenticity	98
Pink	Choice or "Say" in Training Important	19
Gray	Class-AutoCode	94
Red	Classroom/School Location Mentioned	80
Red	Coaching Mentioned-Auto Code	46
Orange	Debrief Mentioned-Auto Code	13
	Experience Presenter-Auto Code	0
Purple	Experienced Teacher Presented Information	44
Brown	Grade Level Specific-Audience Specific	52
Gray	Hands-On Mentioned	4
Orange	In Class Follow Up	1
Red	L1-Behaviorism	10
Orange	L2-Constructivism	15
Yellow	L3-Social Constructivism	29
Brown	L4-Social Learning Theory	14
Dark Green	L5-Situated	45
Light Blue	L6-Situated	95
Purple	L7-Sociocultural	30
Orange	Mandatory Session	24
Orange	PD Ongoing/Follow Up	1
Red	Peer Coaching Mention	82
Turquoise	Peer Collaboration-Auto Code	0
Turquoise	Peer Discussion/Peer Collaboration Mentioned	179
Turquoise	Peer Observation-Auto Code	13
Brown	Q0-Participant Reported Delivery Method	54
Gray	Q00-Session Name	54
Light Green	Q1-Most Authentic	54
Red	Q2-Least Authentic	54
Turquoise	Q3-Future Application	56
	Q4-Delivery Method Impact	55
	Q5-Impact on Logistics	54
Dark Green	Q6-Most Useful Aspect	55
Pink	Q7-Least Useful Aspect	54
Yellow	Q8-Impact on Future Practice	55
	Q17- Less Authentic Session Descriptions	14
	Q17-Experienced Training Types Current District	14
	QEOY1-Previous Participation	5
	QETY6-Delivery Methods experienced	7
	QEY1-Sessions Attended And Surveyed	7
	QEY2-Most Useful Session	6
	QEY3-Least Useful	5
Light Blue	Q113-Availability of Technology TPD	14
Light Blue	Q114-Technology TPD work Load Impact	14
	Q115-Barriers to TPD Participation	14
	Q117-Effectiveness of TPD Provided	14
	Q118-Share Your Thoughts on TPD	14
	Real Experiences Drawn Upon	7
Light Blue	Seeing Lesson in Action mentioned	111
Dark Blue	Self Selected Session	69
Red	Student Mentioned-Auto Code	218
Dark Green	Student Video Mentioned-Auto Code	29
Dark Green	Student Video Used	16
Dark Green	Student Work Mentioned	32
Light Green	Students Mentioned	73
Light Blue	Technology Training Mentioned	39
	Usefulness	97

(Source: Exported from Atlas.ti Project File)

6. The codes that applied to the main themes for the data analysis were then grouped into code groups (see Table 15).

**Table 15**

*Code Group List*

Code Group
"Seeing" Lesson in Action
Choice
Coaching
Experienced Presenter
Follow Up/Debrief
Like Peers/Grade Level Specific
Peer Collaboration
RQ_Part 1
RQ_Part 2
RQ_Part 3
Session Location Class/School
Student Physical Presence
Student Video/Work Used
Technology

(Source: Exported from Atlas.ti Project File)

7. The code groups were then exported into reports in a Microsoft Word format that included the document/participant ID and the question they were answering when the response was given.
8. These documents were printed and hand-coded to identify which SPLT model level the response was connected to, based on the participant ID.
9. The documents were then re-arranged by SPLT level within each portion of the question (i.e., authenticity, usefulness, application, and technology) for use in the data analysis section and future implications writings. This was done by hand and in Word after exporting the data from Atlas.ti into a Word document.
10. Following the SPLT level sort, the data were again resorted into the themes emerging from the data (e.g., collaboration, experienced presenter, student physical presence)

11. From this final sort, the results section was compiled and written in order to represent the themes that emerged at each level.

12. A final graphic was created to show the themes that emerged for each level of the SPLT model for each part of the research question. This graphic was created to summarize the results; it is to be used as a support for future implications in TPD planning.

### **3.9 Researcher Perspectives**

In this type of qualitative research, the researcher not only acted as a person from the outside looking in, but also a person who had the view of an insider as a participant. This combination of two different processes provided a unique lens to the researcher. The stance taken by the researcher in most of the TPD activities was a balance between what Dewalt and Dewalt (2011) described as moderate participation and active participation (p. 23). In the instance of moderate participation, the researcher was present for the TPD, and took on the identity as a researcher who occasionally participated in the activities (Dewalt & Dewalt, 2011, p. 23). As an active participant, the researcher was engaged in almost every part of the TPD as a means of learning by doing (Dewalt & Dewalt, 2011, p. 23). In my role as a participant observer, my ability to moderately or actively participate depended on the content and nature of the TPD session that was provided. Some sessions allowed for total active participation, while others only permitted moderate participation.

I also chose to keep a separate reflective field journal to help maintain or illuminate my own potential bias to the TPD sessions. As former public school teacher of over ten years, I have attended and presented my share of TPD. I instinctively knew that in sitting down to observe and participate in the TPD activities, I would either be unconsciously drawn to certain types and have more negativity about other types. I used the reflective field journal to air these biased feelings

and to keep them out of my more anecdotal observational field notes. I wrote in the journal immediately following sessions, and I even went back later when thoughts of comparison to other TPD sessions emerged, leading me to note them as well. It is my hope that my record of these feelings and biases allowed them to be kept separate from my analysis of the data and my conclusions.

### **3.10 Issues of Reliability and Transferability**

The idea of bias in qualitative research needed to be addressed openly and with transparency. Dewalt and Dewalt (2011) explained that the quality of participant observation varies depending on many of the personal characteristics of the ethnographer, such as gender, training and experience, and theoretical orientation (p. 95). It was clear that researchers cannot completely avoid all of these biases when observing and collecting data (Dewalt & Dewalt, 2011, p. 95). The reporting of these findings attempts to reveal these potential biases to readers and to allow readers to consider these when reviewing the results (Dewalt & Dewalt, 2011, p. 96). The use of more formal methods of data collection—such as the methods chosen in this study—were selected to improve the consistency of the reported results (Dewalt & Dewalt, 2011, p. 96). Thus, the triangulation of the data was intended to provide protection from the researcher's personal biases and to give more of a voice to the participants after the researcher explored the data for themes and implications.

The idea of transferability was considered when the sample was selected. The idea of inviting public school districts with diverse student populations and diverse teacher educators should allow for more transferability to the U.S. educational setting. The description of the setting, participant population, and the variety of TPD observed should help readers find

commonalities to their own personal educational settings, or at the least provide a vivid picture of where the study took place in order to provide context to the results.

## **Chapter 4**

### **RESULTS**

#### **4.1 Overview of Results**

To explore the research question, the question was divided into four parts that encompass the main ideas of the research question. In the following section the perceptions of authenticity, usefulness, and application of the TPD learning are explored in a more in-depth way within the framework of the SPLT model. The use of technology-delivered or technology-enhanced TPD is explored separately when discussing the same groups of authenticity, usefulness and application. Due to a large volume of textual information that was shared by the teachers, only the responses and perceptions that represent the majority of the data are shared to illuminate the main themes of perception shared by the teachers.

As the data were explored, some components and themes emerged and repeated themselves in multiple parts of the research question. In these cases, the data for parts of the research questions were combined in order to avoid redundancy. The results were grouped by the elements that were expressed by the teachers as authentic, useful, and applicable and by SPLT model levels.

After an in-depth analysis of the data, key components used in the TPD sessions that impacted authenticity, usefulness, and application began to emerge.

#### **4.2 Key Components of TPD for Authenticity, Usefulness and Application**

Throughout the study, teachers were asked their perceptions about what made each TPD session authentic, useful, and applicable to their teaching (see Figures 8, 9, 10, and 11 for a comprehensive list of all the participant questions). In an exploration of the compiled data, it became apparent that the components shared were overlapping and were shared for all three parts

of the research questions. To avoid redundancy, the following thematic elements (or components) that were shared in three parts of the research question are explored.

#### **4.2.1 “Seeing” a Lesson: Video, Coaching/Team Teaching, Peer Observation**

In this thematic element, teacher-participants shared that *seeing* the learning in action was one of the most authentic, useful, and applicable aspects of TPD sessions. The ways in which teacher-participants reported seeing the learning varied from being shown a video of a lesson to being in a classroom with students present for the lesson. This notion of seeing was explained in different ways, among the most common were the following:

- Watching a video of students and teachers engaging in a lesson that demonstrates the TPD content and goals
- Seeing a lesson through coach modeling or team teaching with a new tool or instructional technique in an actual classroom, during instructional time, and with students physically present
- Seeing an actual lesson through peer observation of a new tool or instructional technique in an actual classroom, during instructional time, and with students physically present

To shed more light on how seeing a lesson impacted teacher perception of TPD sessions, several illustrative responses are shared in this section. This sample of responses highlights the themes that were common in the component (see Appendix J, Table 18 for the comprehensive data). The different ways in which the *seeing-it* component was perceived are shared below.

##### **4.2.1.a “Seeing” a Lesson: Video**

Teachers shared that the use of video has enhanced authenticity and usefulness in their TPD learning. In a SPLT Level 2 session, participant 47 SUR-NTT1 stated that “watching the



video about the kindergarten classroom gave us some ideas for a lesson that we are doing next week” (Survey Data, 2016–2017). At Level 4, the seeing-it component through a video was shared again by participant 50 SUR-RI1, who said that the most useful aspect was “watching the student video.”

#### **4.2.1.b “Seeing” a Lesson: Coach Modeling/Team Teaching**

The idea of learning by observing a coach or by team teaching with a coach was a prevalent response in terms of what made the TPD sessions authentic, useful, and applicable.

At SPLT Level 5, Participant 6 SUR-ALF2 shared that the most authentic aspect of the TPD session was “observing the coach using components of the personalized learning experience within a lesson” (Survey Data, 4-2017). Participant 57 INT3 shared similar thoughts on working with the coach being an authentic experience:

Seeing her do this in the classroom and model it makes it authentic. Being able to see it and then apply it is better than sitting in a PD session with a projector . . . . I need to know what it looks like in a classroom so it is easier to implement. Seeing it in the classroom, seeing how it immediately applies. (Interview Data, 2017)

Participant 22 SUR-ALF7 shared that the most useful aspect of the TPD session was “watching, learning, and listening to my coach in an area they have more expertise when they are with my students in the classroom” (Survey Data, 2017). Participant 57 INT3 shared, “Each time I observe my instructional coach, the skills I observe her teach in each session improves and brings more personalized learning elements and critical thinking skills forward in my mind. I implement these more after these sessions” (Interview Data, 2017).

Participant STUDB-T2, who participated in a studio classroom at Level 7 of the SPLT model, made the following comments about the experience: “It was 100% value. Seeing it. When

you get to see it in action. Being a part of it, I know exactly what I need to say and do to bring it to my classroom” (Studio Classroom Debrief Notes, 5-22-17). In a similar statement from the Level 7 session, Participant 2 SUR-STU1 noted, “I am going to do this lesson this week with my kids” (Survey Data, 2017). Participant 3 SUR-STU2 said that they “feel more confident trying some of the strategies we learned today having seen it in action with a classroom of second graders” (Survey Data, 2017).

#### **4.2.1.c “Seeing” a Lesson: Peer Observations**

Another way of seeing a lesson in action was through the observation of peers. Participant 61 INT7—who participated at Level 6—shared that the session was authentic for the following reason: “It wasn’t staged classroom visits. It was just a regular day. Seeing their rooms and a lesson in action. It was real life. Real time” (Interview Data, 2017). Participant 16 SUR-PIN3 echoed similar sentiments when sharing that “having the time to go and visit other rooms and take back some usable information” made the session authentic (Survey Data, 4-2017). Participant 13 SUR-TIER5 made the following comment: “Being in another school really helped me see what is going on outside of the school I work at. It was wonderful to see other teachers doing things that I would like to implement in my classroom” (Survey Data, 4-2017). Participant 15 SUR-PIN2 shared that the most useful aspect was being “inspired by fellow teachers’ lessons . . . it was a great way to get out and see bulletin boards, seating arrangements, teaching styles, etc.” (Survey Data, 2017). Participant 9 SUR-TIER1 shared that seeing tier time in another school was an “eye opening experience of what RTI time looks like at another school” (Survey Data, 2017). Participant 10 SUR-TIER2 said that they “came away with quite a few ideas for improving my tier 2 time in the classroom” and “got a few ideas for classroom set up and management” (Survey Data, 2017).

The data suggest that the seeing-it component should be included in TPD activities that fit into Levels 1, 2, 5, 6, and 7 of the model in order to make the TPD session more effective. At each model level, components that helped teachers *see* the content, tool, or skills in action made the TPD session more effective. This theme can be explored more in the discussion of future applications.

#### **4.2.2 Collaboration**

The idea of collaboration was a thematic element/component that recurred in the responses of teacher-learners at several levels of the SPLT model. Not only is this theme explored in terms of authenticity, but it is shared again by teacher-learners when considering usefulness and application. Teachers felt that collaboration was an important component throughout a majority of the SPLT model level sessions.

In Levels 2, 3, and 4, the teachers shared that they felt the most authentic aspect of the session was the opportunity to collaborate. At Level 3, the idea of being able to talk about the topic with peer teachers and administrators was mentioned as the most authentic element by eight of the nine respondents (Survey Data, 1-2017). The idea of collaboration was mentioned in four out of eight responses in the coded data for authenticity at Level 4.

In the higher levels (5–7), the type of collaboration described is slightly different in most of the data as teachers explained that having a pre-/post-discussion with peer teachers was the most authentic aspect of these higher-level sessions. This idea is explored separately later in the section that explains the thematic element of student physical presence, as this element has features that correspond with this type of TPD session. The perceptions of collaboration from the sessions are described in the following ways:

- Collaboration (General)

- Collaboration with like-peers
- Collaboration in a pre-/post-discussion (see the student presence component)

In order to further explore how collaboration impacted teacher perceptions of TPD sessions, this section presents responses that highlight the teacher-participant thoughts on authenticity, usefulness, and application. This sample of responses is a reflection of the most common perceptions shared about this component (see Appendix K, Table 19 for the comprehensive data). The different ways in which the collaboration component was perceived are shared below.

A Level 2 participant, 47 SUR-NTT1, explained that the most authentic elements of the TPD session were “conversations of what teachers are doing in their classrooms, connections to their own ideas, etc. after watching a video, looking at a graphic, etc.” (Survey Data, 11-2016). Another Level 2 SPLT session participant, 51 SUR-DD1, shared that peer collaboration made the session more authentic by saying that the “break-out sessions to work with team members” were the most authentic elements of the TPD session (Survey Data, 05-2017). Participant 51 SUR-DD1 shared that her future application ideas came from a discussion with her partner about classroom strategies (Survey Data, 2016-2017).

For Level 3, the idea of being able to talk about the topic with peer teachers and administrators was mentioned as the most authentic element by eight of the nine respondents (Survey Data, 1-2017). Participant 46 SUR-MLS9 also shared their thoughts on what was most authentic by saying that they “appreciated the time to work across district by grade level” (Survey Data, 1-2017). Another participant, 42 SUR-MLS5, echoed the same sentiments by saying the most authentic element of the sessions was the time spent on “evaluating our curriculum with other teachers in the district” (Survey Data, 2-2017). Participant 41 SUR-MLS4

also perceived the collaborative time as the most authentic element by saying it was a “good chance to interact with peers and come to consensus” (Survey Data, 1-2017). Another Level 3 participant, 75 EOY2, shared that the Level 3 session was most useful because the participants “were still trying to unanimously agree across the district on a new curriculum” (Survey Data, 2017). Participant 43 SUR-MLS6 stated that the most authentic aspect of the session was the “opportunity to collaborate with the administrator” (Survey Data, 2017). Participant 35 SUR-MLS1 also said the most authentic elements were “the opportunity to get clarification from the administrator and time to collaborate with peers” (Survey Data, 1-2017). The presenter/facilitator in this session was an administrator in charge of student learning and acted as a moderator for a middle level social studies curriculum mapping activity (Field Notes 1-23-17, pp. 16–19).

The idea of collaboration was mentioned in four out of eight responses in the coded data for authenticity at Level 4. Being given the opportunity to discuss the session content with peers was mentioned in multiple responses. Participant 24 SUR-DALF1 stated that the most authentic element of the Level 4 TPD session was “being able to communicate with other educators and apply strategies we learned about in classroom-like experiences” (Survey Data, 4-2017). Participant 26 SUR-DALF3 stated that the most authentic elements were “having the interaction with colleagues discussing the topic at hand” and “using their input to create strains of thought” (Survey Data, 4-2017). Participant 53 SUR-RI3 explained that the most authentic element of the session was related to interaction with peer teachers as well. They stated, “I really enjoyed the discussion at our tables with my colleagues. I learn a lot from the people I teach with everyday” (Survey Data, 11-2016). Participant 80 EYO7 stated that the Level 4 learning the experiences were applied because of “collaborative efforts with other grade levels” (Survey Data, 2017).

In Levels 5, 6, and 7, a similar thematic element that involved collaboration is later presented. In the higher levels (5–7), the type of collaboration described is slightly different, as teachers explained that having a pre-/post-discussion with peer teachers was the most authentic aspect of these higher-level sessions. This is explored separately in the section that explains the thematic element of student physical presence, as this element was seen to act as a complement to this type of TPD session.

#### **4.2.2.a Collaboration time with like-peers**

Teacher-participants not only mentioned collaboration as a key aspect to their perception of the usefulness of TPD sessions, but they added a more specific ingredient to the collaboration, which was collaborating with like-peers. At Level 2, participant 54 SUR-DD2 shared that the “time to talk with teammates” was the most useful aspect of the TPD session (Survey Data, 2017). At Level 3, participant 42 SUR-MLS5 said that specifically “working and evaluating with our peers” was most useful (Survey Data, 2017). The same perception was echoed in the statement of participant 43 SUR-MLS6, who shared that “having time to discuss with peers” was the most useful aspect of the Level 3 TPD session (Survey Data, 2017). At Level 4, participant 50 SUR-RI1 explained that “working with team mates” was the most useful part of the TPD session (Survey Data, 2017). Participant 65 INT11—another Level 4 session participant—made a comment along the same line: “When a PD presentation allows discussion with job-alike peers it is more powerful” (Interview Data, 2017). In short, collaboration is a main theme found throughout the study, and it is later explored again in the coming chapters.

In terms of collaboration as a thematic component, data suggest that collaborative activities should be included in TPD activities that fit into Levels 2, 3, 4, 5, 6, and 7 in the model in order to make the TPD session more effective. The data also suggests that different TPD

content and goals may be better supported by carefully forming collaborative sessions, such as like-peers/grade-level peers, school level peers (middle school, K–3, 3–5), and administrator/teacher collaboration.

#### **4.2.3 Student Physical Presence in TPD Experiences**

The positive impact of students being physically present for the TPD session was evident in the results. The perceptions that focus on this aspect naturally began to emerge in data collected from the higher levels of the SPLT model (5–7). At this higher level of the model, the delivery type moves from being delivered outside of the classroom presentations to in-classroom delivery methods. In all TPD sessions discussed here, students were in the room and were engaging in learning activities on a normal instructional day (Field Notes, 4-2017).

The main components that teachers found to have enhanced the authenticity, usefulness, and application of TPD sessions revolved around the fact that the students were physically there and engaging in instruction (Survey Data, 2017; Interview Data, 2017; Focus Group Protocol, 2017). Teachers reported that seeing the students and their actions made their TPD learning more authentic and useful. They also highlighted the fact that they were more confident and prepared to immediately apply the learning in their own classroom settings (Survey Data, 2017; Interview Data, 2017; Focus Group Protocol, 2017). Several teachers who shared that they would be implementing their learning ended up forming the session with students within one week following the TPD session (Survey Data, 2017; Interview Data, 2017; Focus Group Protocol, 2017).

The perceptions that were shared were categorized into four main areas for consideration in future TPD planning:

- TPD that occurs in a teacher’s own classroom with their own students

- TPD that occurs in the classroom of another teacher in their own school
- TPD that occurs in a different school
- TPD in the presence of students that included a pre-/post-discussion

These four areas had varied learning outcomes for the teachers based on the location of the session, the goal of the session, and whether they included a pre-/post-discussion. To further explain the ways in which student physical presence impacted teacher perceptions of TPD sessions, responses that highlight the teacher-participant thoughts on authenticity, usefulness, and application are shared in this section. This sample of responses represents some of the most common perceptions shared about this component (See Appendix L, Table 20 for the comprehensive data). The variety of ways in which the student presence component was perceived are detailed below.

#### **4.2.3.a TPD with Students Physically Present in Teachers' Own Classrooms**

Starting at Level 5, the perception data begins to illustrate the teachers' experiences with coach-delivered TPD in District 2. The "push-in" sessions occurred in the teachers' own classrooms during instructional time with students (Field Notes, 4-2017). In SPLT Level 5, 13 of the 24 responses on authenticity revolved around the students being physically present for the TPD session.

Participant 57 INT3 shared that the most authentic element was having "someone coming in to work with you and your classroom full of kids" (Interview Data, 2017). Participant 19 SUR-ALF4 shared that the students are what make the session authentic in this comment: "The kids, they just say it the way it is! Or don't say it at all" (Survey Data, 4-2017). Another participant shared that it was not only the idea that the students were "physically" present, but also that they were the teacher's students learning in the teacher's own classroom. Participant 56



INT2 remarked, “It is helpful because it is with my class and students. I feel like [with] watching another class I have to think about how it would look in my room, but with this I don’t. I get to see it” (Interview Data, 2017). In another account at Level 5, participant 21 SUR-ALF6 shared that “the opportunity to observe my students [sic] level of engagement” was the most useful aspect of the TPD (Survey Data, 2017). Participant 22 SUR-ALF7 shared a similar sentiment by sharing that they

. . . enjoy watching, learning, and listening to the coach in an area in which they have more expertise when they are with my students in the classroom. It allows me to observe the students’ responses and reflect on how I would present the same lesson. (Survey Data, 2017)

Another Level 5 participant, 78 EOY5, noted how student presence impacted her perception of the training in this comment: “I could see how the practices could be used in a classroom setting” (Survey Data, 2017). In the focus group discussion, the idea of TPD happening in the teacher’s own classroom was shared again. Participant 70- FGT002 shared that the most useful aspect of training she received was due to “the dynamics of your school, your students, and the hands-on learning that you don’t get until you work” (Focus Group Protocol, 2018).

In Level 5 model sessions, teachers shared that the students were important to their ability to apply the session in later professional work. At Level 5, Participant 1 SUR-ALF1 remarked, “Every session that I have the instructional coach push into my room leaves me with a take away that I can use with my students in the future” (Survey Data, 2017). Participant 7 SUR-ALF3 noted that after the session with their own students in their own classroom, they have “new ideas for peer feedback” (Survey Data, 2017). At Level 7, participant 3 SUR-STU2 shared

that they feel “more confident trying some of the strategies we learned today after having seen it in action with a classroom of second graders” (Survey Data, 2017).

Seeing the learning in the teachers’ own schools and classrooms provided them with more support in terms of future application. They did not need to consider how a new technique or tool would work in the classroom because seeing it occur took away the processing step. In other words, the teachers were able to walk away with the ability to immediately apply the learning to their own situation.

#### **4.2.3.b TPD with Students Physically Present in the Classrooms of Others**

The idea of student physical presence impacting perceptions of TPD continued when the TPD sessions occurred outside of the teachers’ own classrooms and was presented in the others’ classrooms in their own school context. Teachers shared that they gained new ideas from observing other teachers and classrooms in their own school setting (Survey Data, 2017; Interview Data, 2017; Focus Group Protocol, 2017). They also shared that these new ideas were gained in the areas of classroom set up, management, and daily routine sessions (Survey Data, 2017; Interview Data, 2017; Focus Group Protocol, 2017).

At Level 6, participant 14 SUR-PIN1 shared that the session was authentic because they were “going into teachers’ rooms at all times with them not always knowing you were coming” (Survey Data, 4-2017). Participant 61 INT7, who also participated at Level 6, remarked on the authenticity in this comment: “It wasn’t staged classroom visits. It was just a regular day. Seeing their rooms and a lesson in action. It was real life. Real time” (Interview Data, 2017). Participant 16 SUR-PIN3 echoed similar sentiments when sharing that “having the time to go and visit other rooms and take back some usable information” made the session authentic (Survey Data, 4-2017). Participant 17 SUR-PIN4 stated, “I thought being able to see teachers doing their daily

routines as opposed to a great specially chosen lesson made the experience more enlightening and authentic (Survey Data, 4-2017). Participant 60 INT 6 shared that the Walk the Halls event gave them an idea to use greeters in her classroom: “A lot of the classrooms had greeters. I liked this welcome and having them learn to greet someone and look them in the eye. I will implement this next year” (Interview Data, 2017). Participant 61 INT7 observed the grade level below and what they taught during the Walk the Halls session (Interview Data, 2017). They shared that it was “great to see what the structure was like for my incoming students. I was also introduced to my future students, which was great” (Interview Data, 2017).

At Level 7, teacher-learners visited the classroom of a grade-level peer to see how a new technology tool could be implemented (Observational Field Notes, 2017). The students being present for the TPD made it more authentic for teacher-participants (Survey Data, 2017; Interview Data, 2017; Focus Group Protocol, 2017). Participant 3 SUR-STU2 shared that the most authentic element of the session for them was “being in a classroom with students with whom we are familiar” (Survey Data, 5-2017). Another participant, 4 SUR-STU3, shared that it was authentic simply by “being in the classroom with the kids” (Survey Data, 5-2017). This element was mentioned again when participant 5 SUR-STU4 shared that “being in the moment of the classroom setting with students that are demonstrating the skill is most helpful” (Survey Data, 5-2017). Participant 69 FGT001 shared that “it is believable when they are there” when referring to the Level 7 studio classroom TPD session that they attended (Focus Group Protocol, 5-2017). Participant 73 FGT005 shared that student physical presence was authentic because it meant “seeing it in action” as well as “seeing what it looks like with students” (Focus Group Protocol, 5-2017). Participant 70 FGT002 explained this element further:

I can see my kids through a different lens. I can interact with different kids and see them for the first time, even being in someone else's room. I see kids differently and get to see them in action. It becomes real. (Focus Group Protocol, 5-2017)

The idea that the learning gained from the TPD session becomes immediately applicable was echoed in sentiments from several Level 7 teacher-participants. Participant 71 FGT003 shared,

You get ideas on how to tweak it for your class and students and it is going through your head the entire time you watch. Your mind is rolling on how it works for you. It gets you ten steps ahead. You feel like it is doable. When you see it in action you can see how much easier it is. It wasn't the monster I thought it was. (Focus Group Protocol, 5-2017)

STUDB-T3, a participant of the Studio Classroom at Level 7, had this comment:

[My] favorite part was seeing the kids. It was so empowering to see how they used the technology and how it was used in action. I really appreciate seeing it in action, how kids responded to each other, individually engaged and involved. They were so engaged, not the least bit confused. I enjoy and appreciate the opportunity to see the kids in the age that I am teaching in action. It helps me think about how to prepare or that I can leave it open for them. (Studio Classroom Debrief Notes, 5-22-17)

After the Level 7 studio classroom model, 2 SUR-STU1 shared that they are going to, "do this lesson next week with my kids" (Survey Data, 2017).

The next area of student physical presence to be explored involved TPD that occurs in the schools of others. Teachers saw value in being able to view teaching and learning that occurred outside of their own school setting.

#### **4.2.3.b TPD with Students Physically Present in the Schools of Others**

The idea of TPD taking place at schools that were not the participant's home school supported teacher learning in several areas. The data revealed that being in a different school setting gave the teacher-learners insights into how they could apply learned practices in their own classrooms. Participant 11 SUR-TIER3 shared that the most authentic aspect of the session was "being in the actual school setting watching tier time" (Survey Data, 4-2017). Another participant from the same session shared that they "felt that being in another school really helped me see what is going on outside of the school I work at. It was wonderful to see other teachers doing things that I would like to implement in my classroom" (Survey Data, 4-2017). Participant 13 SUR-TIER5 shared that the most authentic aspect of this session was being in a "real classroom situation" (Survey Data, 4-2017). Participant 9 SUR-TIER1 shared that they came away with "great ideas of what I can implement in my classroom" (Survey Data, 2017). Participant 18 SUR-PIN5 remarked, "Observing the actual classroom gives the opportunity for the most honest situation" (Survey Data, 2017).

Although teachers seeing value in participating in classroom-based TPD sessions was a likely finding in this study, there was a surprise component found in the responses, and according to the teachers it made these sessions more meaningful. Teachers were more likely to effectively reflect upon and apply learning when a pre-/post-discussion was paired with the classroom-based experience. The fact that the teachers felt that this pre-/post-discussion was equally important to the in-classroom experience was surprising, and it is discussed in the next section.

#### **4.2.3.c TPD with Students Physically Present with a Pre-/Post-Discussion (SPLT Levels 5, 6, and 7)**

The teachers who participated in TPD sessions with student physical presence frequently had the opportunity to meet with the peers or coaches to discuss what they saw in their classroom TPD sessions. This aspect was included at Level 5, 6, and 7 TPD sessions. In these sessions, teacher-participants frequently noted that the opportunity to discuss the classroom-based TPD experience enhanced the authenticity, usefulness, and future application of the session (Survey Data, 2017; Focus Group Protocol, 2017).

Participant 22 SUR-ALF7 shared that it was not just the idea of seeing a model lesson in the classroom with students but also the “planning together and then reflecting on the lesson together” with the coach that made the lesson authentic. Participant 23 SUR-ALF8 explained that when discussing interactions with the coach, they “had a very real image of what classrooms are actually like. They were very willing to both share and listen to what our opinions and thoughts were” (Survey Data, 4-2017). The exchange between the coach and the teacher-learner was also shared as an authentic element by participant 57INT3, as seen in this comment when discussing interactions with the instructional coach: “We plan and co-teach often. Seeing her do this in the classroom and model it makes it authentic” (Interview Data, 2017). Participant 75EOY2 also noted this post session interaction as part of authenticity by sharing how they “could implement the strategies immediately and get peer and coach feedback shortly after the implementation” (Survey Data, 5-2017). The idea of how the debrief impacts authenticity continued to emerge in the Levels 6 and 7 data as well.

At Level 6, there was a session that involved teachers walking the halls to observe other classrooms in their own school. This session included a time to debrief with all participants over

lunch (Field Notes, 2017). A participant from this session, 18 SUR-PIN5, shared that the most useful aspect was being able to “hear people’s feedback about visiting multiple rooms and various grade levels” (Survey Data, 2017). In another Level 6 session, teachers visited another school in their own district to discuss how tiered intervention time was set up and to observe the time in action (Observational Field Notes, 4-26-17, p. 41). Participant 11 SUR-TIER3 added that “being given time to sit and discuss and ask questions with teachers” was most useful and that it was “helpful to hear what diagnostic tools they use” (Survey Data, 2017).

Following the Level 7 studio classroom, the teacher-participants shared that the inclusion of the pre-/post-discussion enhanced the authenticity. Participant 3 SUR-STU2 shared the components which made the session most authentic were not only just having the students in the room but also the “time to meet and preview the lesson/goals prior to the classroom experience,” as well as the “time to collaborate and debrief with our colleagues” (Survey Data, 5-2017).

Participant 3 SUR-STU2 goes on to share that,

The time in the classroom was obviously at the heart of what I learned, but I think the time before and after the lesson helped me bring everything together to make it useful in future planning for my own classroom. (Survey Data, 2017)

In the focus group session, teacher-participant FGT002 shared that “discussions and observations like the focus group model” are the types of sessions they enjoyed most. This sentiment was echoed by FGT005 in the same discussion (Focus Group Data, 5-22-17).

The following section explores themes that were isolated in impact to the areas of usefulness and application. These themes include the importance of making clear connections to the classrooms/district to which they were delivered and also the types of resources provided to session participants.

### **4.3 Key Components of TPD Specifically Related to Usefulness and Application**

Throughout the study, teachers were asked about their perceptions on what made each TPD session authentic, useful, and applicable to their teaching. In an exploration of the data, it became apparent that some of these components overlapped and were shared in several parts of the research questions. To avoid redundancy, the following thematic elements or components that were shared in two parts of the research question are explored below. The two parts of the research question that the following elements/components emerged from are regarding the areas of usefulness and application. All pertinent teacher perception data is shared in the sections below; no appendices or tables were indicated.

#### **4.3.1 Clear Connections to Classroom/District**

The idea of having a TPD session that makes clear connections to the classroom and district in which it takes place was important, specifically in terms of the teachers' perceptions of usefulness and application. The data suggest that the content, instructional techniques, or tools being taught should directly connect to the classrooms and settings of the teacher-learner (Survey Data, 2016-2017, Interview Data, 2017). This perception was shared at Levels 2, 3 and 4 of the model by several participants.

Participant 76 EOY3 shared that the most useful aspect of the TPD session was that it had "application right back to the classroom" (Survey Data, 2017). Participant 78 EOY5 shared that the most useful TPD session attended "taught me a mindset that I am using every day in my classroom" (Survey Data, 2017). The idea that the teacher-participants could connect the session directly to their personal setting was important to them in terms of usefulness. Participant 48 SUR-NTT2 experienced a personalized learning TPD session. Personalized learning is a district



wide initiative and a focus of many of the TPD sessions the teachers were receiving (Observational Field Notes, 2017). The idea that this was the topic of the TPD session attended by participant 48 SUR-NTT2 impacted their perception of usefulness. They shared that the most useful aspect of the session was “gaining new ideas and ways to implement personalized learning into the classroom throughout the day, not just for a block of time” (Survey Data, 2017). This theme was also noticed in other areas of the district curriculum as well. At Level 2, participant 51 SUR-DD shared that reviewing the materials for the math they will use in their teaching was the most useful aspect of the TPD session (Survey Data, 2017). At Level 3, participant SUR-MLS4 shared that “getting a better understanding of what we’re going to be doing in the future” and “having input” was the most useful aspect of the session (Survey Data, 2017). This Level 3 session was a curriculum mapping session that was directly connected to the teaching and grade-level content that the teacher-participants would be using in the coming school year (Field Notes, 1-23-17, p. 16).

There were teacher participants who saw that the idea of being able to make connections to their classrooms or to their districts had an impact on their perceived future applications of the TPD session. The idea of making personal connections to the session made it more applicable for the teachers when they returned to their classroom settings (Interview Data, 2017; Survey Data, 2016-2017).

Application at Level 3 was heavily impacted by content. Many of those teachers mentioned that the content was directly related to the curriculum being adopted for future use in either their schools or district (Survey Data, 2016-2017). Participant 77 EYO4, who was part of a Level 4 session, shared the following thought in an end-of-the-year survey: “I have started thinking more about dispositions, our district values, and how to make those clear for my

students” (Survey Data, 2017). Participant 56 INT2 made this comment after a Level 5 in-class session focusing on peer feedback: “Some of the things my instructional coach does really well is getting kids to give peer feedback and I have used some of these techniques for peer feedback with the class” (Interview Data, 2017). Participant 57 INT3 shared the session they attended was “more valuable because it applied directly to my teaching at that time. I took that learning and used it to teach and further more colleagues through sharing” (Interview Data, 2017).

#### **4.3.2 Materials/Resources**

The impact of providing materials for the teacher-participants emerged when they were asked which aspects made TPD sessions useful. Teachers shared that in order for TPD to be more useful and applicable, resources to support learning as well as resources for future use should be provided in the session (Interview Data, 2017; Survey Data, 2016-2017).

At Level 1, participant 31 SUR-K3WS4 shared that “having materials in front of us” was the most useful aspect of the TPD session they attended (Survey Data, 2017). This idea was shared by another Level 1 participant, 32 SUR-K3WS5, who also thought that having the materials was the most useful aspect of the TPD session (Survey Data, 2017). The theme continued with several other participants from the Level 1 session. Participant 33 SUR-K3WS6 shared that “seeing the month by month continuum as well as the continuum over the span of years” was the most useful aspect of the session. According to participant 34 SUR-K3WS7, the act of “reviewing the materials and how to use them in the classroom” was the most useful aspect of the Level 1 TPD session. Participant 40 SUR-K3WS10 continued this theme by sharing that having the “supplies in hand” was the most useful aspect of the session.

In the area of application, providing materials to teachers for future use was important in terms of the perception of the session's usefulness. This theme was evident in sessions at lower levels of the model, specifically at Level 1 of the SPLT model.

At Level 1, participant 34 SUR-K3WS7 shared that the aspect that would most support them in future application of the session was that teachers were given "plenty of materials to use immediately in the classroom" (Survey Data, 2016-2017). Participant 37 SUR-K3WS9 from the same session commented, "It is our new word study curriculum so I must use the materials" (Survey Data, 2016-2017).

Some key components that make TPD more effective emerged only in the data when questions about authenticity and usefulness were asked. The perception of some sessions were impacted by the level of experience the presenter had in teaching the skills, topic, or tools they presented. The opportunity to practice and apply new skills was also stressed by teachers. These themes are explored below.

#### **4.4 Key Components of TPD Specifically Related to Authenticity and Usefulness**

Some key components were noted in several areas of the research question. The following thematic components that were shared in two parts of the research question and are explored below. The two parts of the research question asked questions about authenticity and usefulness, and the following elements/components emerged from the two parts of the question.

##### **4.4.1 Experienced and Knowledgeable Presenter**

There were several sessions at various levels of the SPLT model in which teacher-learners shared that having a knowledgeable or experienced presenter was the most authentic aspect of the session. In terms of authenticity, this aspect was described at Levels 1 and 2 specifically.

At Level 1 of the SPLT model, five out of the 10 survey respondents mentioned that the factors which made the TPD authentic for them were the presenters having prior teaching experience with the content and their ability to share and draw upon it. Participant 34 SUR-K3WS7 stated that the most authentic element was “the presenter’s knowledge of the materials and experience in using them with children” (Survey Data, 01-23-2017). The element of an experienced presenter being key to authenticity was echoed by participant 28 SUR-K3WS1, who stated that the most authentic aspect of the TPD session was that the “presenter was an experienced teacher who was knowledgeable about the new curriculum” (Survey Data, 01-23-2017). This was taken a step further when shared by participant 31 SUR-K3WS4, who considered the trainer to be the most authentic element: “The trainer knew the material well and has taught the material herself in a classroom” (Survey Data, 01-23-2017). Another participant, participant 36 SUR-K3WS8, explained that the most authentic element involved the presenter’s prior teaching experience: “It was helpful to have a person from the program come and share/show her personal experiences and what worked for her” (Survey Data, 01-23-2017). The researcher’s field notes also included information that echoes the survey respondents’ elements of authenticity; they included notations that the presenter is an experienced teacher and has taught the material she was presenting on (Field Notes, 1-23-17, pp. 20–25).

In Level 2, the teacher-learners shared the same perception that having a knowledgeable presenter with prior teaching experience to draw upon made the TPD session authentic. In the end-of-the year survey response, participant 77 EOY4 stated, “I also was thrilled to be led by knowledgeable individuals running the session” (Survey Data, 05-2017). Another end-of-the year survey participant, participant 79 EOY6, expressed a similar sentiment in terms of what

makes TPD authentic when they explained that the most authentic sessions “were given by current district teachers who understand our curriculum” (Survey Data, 05-2017).

The idea of having a knowledgeable and experienced presenter continued to have an impact on teacher-participants’ perception of the TPD sessions they attended. In terms of the research question, usefulness was explored in questions presented to the teacher-participants through surveys and focus group sessions. A Level 1 TPD session participant, 36 SUR-K3WS8, shared that the most useful aspect of the TPD was “having a person present that had used it for years as a teacher and was very knowledgeable on the program and how to implement” (Survey Data, 2017). Participant 59 INT5, who experienced a Level 6 TPD session, shared that “the most meaningful PD comes from people who have recently been in that situation and are experts on it” (Interview Data, 2017). This idea continued in comments shared by 73 FGT005, a participant at levels 5 and 7, by saying that the most useful TPD involved “different people from our staff presenting to each other (this happened overseas),” and also stated that “being at a presentation presented by peers is useful” (Focus Group Protocol, 2017). Participant 77 EYO4, who experienced a Level 4 TPD session, continued this thematic element with this comment: “The most useful trainings were ones when I learned from expert teachers and saw clear ways the content they were discussing could be connected to my classroom” (Survey Data, 2017). This theme is seen in several aspects and categories of the data, and it is explored further in the area of application as well.

#### **4.4.2 Practice in Application**

The importance of practice and application for authenticity began to emerge at Level 2 sessions in the SPLT model. At Level 2 of the SPLT model, some of the teachers were asked in a survey to share what elements of the TPD session were the most authentic. The teachers at this

level shared more of a variety of elements that made experiences at Level 2 authentic. There were only two sessions observed and surveyed at Level 2, and teachers had very different ideas about what made the sessions authentic. Some of the responses in this level were shared by the teacher with the researcher in an in-depth interview. This same analysis also included some survey participants who shared about TPD experiences in an end-of-the year survey. These results were also coded for elements that placed them at Level 2 or linked back to Level 2 sessions based on the participants' list of sessions attended in the study, and the results focused on authenticity.

An element that emerged in the Level 2 authenticity data was the idea of application and practice of the learning. A participant shared this perception after a Level 2 session that included documenting and reflecting lesson which was modeled by coaches with the teachers acting as students (Field Notes, 11-30-16, pp. 11–15). The teachers were given the task of designing an airplane model with a list of pre-determined materials and in a set amount of time (Field Notes, 11-30-16, pp. 11–15). During the work time that they spent as students, the teachers were to document and reflect on their airplane building experience and use the information gathered through videos and photos to edit their airplane design (Field Notes, 11-30-16, pp. 11–15). Participant 48 SUR-NTT2 shared that the model lesson was the most authentic element of the TPD session, which also included traditional presentation style and some sharing of student work and classroom tools. Participant 48 SUR-NTT2 explained that the most authentic element of the TPD session was “the airplane model and focusing on documenting and reflecting” (Survey Data, 11-2016). The same idea of application and practice that made the experience more authentic was shared in an interview with participant 58 INT4, who stated, “Anything that allows

you to interact with a new skill set and allows you to apply and practice” (Interview Data, 2016-2017).

The idea of having a practice component or an application component in a TPD session was also shared by teachers when they were asked what made the session useful. In a Level 4 session, 25 SUR-DALF2 shared that “the break out session on documenting student work was very helpful for me because we got to practice using SeeSaw first hand and they taught us by doing an activity that would be fun to do with my students” (Survey Data, 2017). In a different Level 4 session, 54 SUR-RI3 stated that “doing the running record was the most useful” for them in terms of the TPD session (Survey Data, 2017). In this activity, the teachers watched a video of a student and a teacher doing a reading activity with a running record. During the video, the teachers were asked to code the running record of the child reading along with the video. They were provided a copy of the text to follow along. After the video, they covered what people coded and discussed why it was coded certain ways (Field Notes, 11-08-2016). The idea that there was guided practice and discussion was mentioned also in the area of authenticity during the exploration of the data. This perception of usefulness is seen in words shared by participant 65 INT11, who noted,

We had a training once on RAZ kids where a professional from the company came in and showed how to use the program, how to use resources, and it was very practical. I felt like I could take this learning directly back and use it immediately in the classroom.

(Interview Data, 2017)

When asked why some TPD sessions were more useful than others, 79 EOY6 responded, “I could specifically use discussion techniques, for example, right when I returned to my classroom” (Survey Data, 2017).

The data also revealed some components that only impacted perceptions in one part of the research question. These topics are explored in the following sections.

#### **4.4 Key Components of TPD Specifically Related to Authenticity**

There was one component that was shared only when teachers were asked more specifically about the authenticity of their TPD learning experiences, namely the impact of student work or artifacts being incorporated into TPD and its importance to teachers. This component is noted in this section.

##### **4.4.1 Student Work and Classroom Artifacts**

An element/component that impacted the perception of authenticity was shared by respondents who experienced TPD sessions at Level 1 of the SPLT model. This element/component involved teachers sharing their past experiences of teaching students in the form of anecdotal recounts and student presence artifacts. More specifically for Level 1 TPD sessions, the teacher-participants remarked that showing how student artifacts/work were used in the classroom, sharing anecdotal stories of previous teaching with students, and sharing videos of student learning brought authenticity to the TPD session. Participant 29 SUR-K3WS2 shared that the most authentic element for them was the use of a power point presentation with “examples” (Survey Data, 01-23-2017). Participant 32 SUR-K3WS5 shared a similar view and said that the element which was most authentic in the session was “having the materials to peruse . . . anecdotal examples for actual use in the classroom” (Survey Data, 01-23-2017). This point was again noted in the comments of participant 33 SUR-K3WS6, who stated that the most authentic element of the TPD session was “walking through the materials, some tangible examples of what the presenter had done” (Survey Data, 01-23-2017). Lastly, it was again shared



by participant 37 SUR-K3WS9 that knowing how the program was used with students was important. They stated that the most authentic element of the TPD session was “the video that they showed on how a teacher implemented her lessons” (Survey Data, 01-23-2017). It was also echoed in the field notes that the presenter shared student artifacts (i.e., student folder), student video, and verbal anecdotes about using the word study program in the classroom (Field Notes, 1-23-17, p. 20-25).

#### **4.5 Key Components of TPD Specifically Related to Application**

There was one component that was shared only when teachers were asked more specifically about future application of their TPD learning experiences. The idea of the session content being important to teachers’ future application was noted in this section. Other factors were mentioned in terms of application; however, session content was not mentioned in authenticity or usefulness, and thus it is explored below in terms of its impact on application.

##### **4.5.1 Session Content**

In Levels 1, 2, 3, 4, and 5, the teacher-participants shared that the “content” of the session was a factor in their perceived ability to apply—or actual application of—the TPD session to future practice (Survey Data, 2016-2017; Interview Data 2017). For many, the idea that the content was related to new or current curriculum programs determined their intended or actual future application of the TPD learning (Survey Data, 2016-2017). In the Level 1 TPD session, the content was presented by a district outsider who worked for the curriculum company (Observational Field Notes, 1-23-17 p. 20). In this session, teacher participants were given materials to look through as the presenter shared some ways in which they could use the materials in the classroom (Field Notes, 1-23-17 pp. 20–25). Most participants from this

session—specifically 10 in total—shared that the content of the training session made it applicable to them in the future (Survey Data, 2016-2017). The session was intended to support teachers in a new curricular component for language arts (Observational Field Notes, 1-23-17). Participant 29 SUR-K3WS2 shared that they would be “implementing the new curriculum in the near future” (Survey Data, 2016-2017). Participant 30 SUR-K3WS3 shared that they would “implement the appropriate lessons in my classroom this year and continue to use it next year” (Survey Data 2016-2017). With a similar view, participant 31 SUR-K3WS4 shared that they can “use the word study program in my classroom with many modifications for my students” (Survey Data, 2016-2017). The applicability was agreed upon by another participant, 36 SUR-K3WS8, who noted, “This training applies to my teaching of phonics and word study” (Survey Data, 2016-2017).

At Level 2 of the SPLT model, the theme of content being important to future application continued with a discussion by participant 48 SUR-NTT2. They shared that they would be “more aware of the power of documenting (which can look many different ways) and self reflection and feedback is critical” (Survey Data, 2016-2017). Another participant from this level shared that they can “apply this training as I work to incorporate reflections and discussions more throughout the school day” (Survey Data, 206-2017). Another participant shared a way in which they applied this training during an interview that occurred later in the school year. Participant 60 INT6 shared that they attended the Level 2 session (NTT2) and said,

I recently had my students film themselves for documentation. They had to make sure they were fully explaining each step in a model format of what they learned and then go back and watch themselves and get feedback on their explanation. We also made *I Can* binders from the PL training. (Interview Data, 2017)

At Level 3 of the SPLT model, teachers found that the content was important to their future application of the session. Participant 41 SUR-MLS4 shared that the content will help “guide what we teach and assess in the future” (Survey Data, 2016-2017). Another participant from the same session shared a similar thought in this comment: “It will make our planning for the future more clear when we try to align our new curriculum and standards” (Survey Data, 2016-2017). Several participants (43 SUR-MLS6, 44 SUR-MLS7, 45 SUR-MLS8, 46 SUR-MLS9) all shared that the content focused on aligning their new curriculum, which would be applied in their teaching for the next school year (Survey Data, 2016-2017).

At Level 4 of the SPLT model, teacher-participants continued to share that the content was a key component to their future application of the session learning. Participant 25 SUR-DALF2 stated that they learned about “the many different dispositions that make up my students, which will help meet their different needs from a variety of different angles” (Survey Data, 2016-2017). Another participant from the same session, 26 SUR-DALF 3, commented, “Discussing dispositions gives credence to what we are trying to do at the building level with our staff” (Survey Data, 2016-2017). Teacher-participant 27 SUR-DALF4 shared that they “already do apply it . . . and are considered when I am planning . . . and used in directing students” (Survey Data, 2016-2017). For participant 58 INT4, a new realization was gained after the Level 4 session on dispositions: “I was more aware of pairing up kids in their activities. I am more aware of personality” (Survey Data, 2016-2017).

#### **4.6 Key Components of TPD Specifically Related to Usefulness**

Throughout the study, teachers were asked their perceptions about what made each TPD session authentic, useful, and applicable to their teaching. In an exploration of the data, it became

apparent that the components shared overlapped and were shared for several parts of the research questions. The act of making *real-life* connections was isolated to usefulness questions.

#### **4.6.1 *Real-life* connections**

There was also a discussion by teacher-participants about the idea of the TPD presenting them with real-life situations and information, which ultimately made the TPD more useful to them. At Level 2 of the SPLT model, participant 49 SUR-NTT3 explained that they “found the real life examples to be very encouraging” (Survey Data, 2017). For participant 74 EYO1, the most useful aspect was the sharing of actual experiences as well as the attitude: “The presenters gave real experiences, they talk with us, not at us” (Survey Data, 2017). The idea of things feeling *real* to the teacher-participants was important throughout the study, and this is explored further in the coming chapters.

### **4.7 Use of Technology in TPD Delivery**

In the area of technology use to enhance or deliver TPD, there was one TPD session that occurred at Level 3 of the SPLT model. Only one survey respondent resulted from this session, and the results from this limited data are shared in this section.

Another source of data for this section came from general questions from the participant interviews that focused on technology use for TPD sessions and how teachers perceived its usefulness in terms of logistics, work load, and the types of technology that delivered the TPD they had experienced in their careers. First, the technology session that was held at SPLT Level 3 is explored here, and the data collected are shared.

#### **4.7.1 Technology Session- Online Grade Level PLC**

Although there was a variety of participation types in the online training session, only one participant took the post-TPD session survey. Due to the low response, there is limited

perception data for this type of session. First, a list of the types of participation seen throughout the session in the LMS is shared below.

#### **4.7.1.a Participation within the Schoology Platform**

Below are statistics on the participation level:

- There were 14 instances of starting a discussion thread to share information:
  - 1 thread topic created by a teacher in the Non-Fiction Text category
  - 3 shares in Science
  - 8 shares in Social Studies
  - 2 shares in Mathematics
- 10 images of students, student work samples, or student created projects (videos, Google Slides, Electronic Posters, Comics) were shared by teachers from various schools
- 5 Instances of shared resources, which included lesson plans, lesson instructional materials, lesson rubrics, folders of entire unit materials, and resource links
- 3 Comments made by participants were made based on what teachers shared
- 2 questions were asked and no answers were shared
- Total Survey Respondents was limited to 1 participant
- No total view counts were possible due to the participant-observer view of the LMS and the capabilities of the LMS system

(Online LMS Observation Notes, 4-2017; Survey Data, 2017).

#### **4.7.1.b Authenticity, Usefulness, Application and the LMS**

In all three parts of the research question, the idea of having a place to share and locate resources and materials was the main theme of the data. It was shared in all three aspects of the research question by the survey participant the online grade-level PLC.

In terms of authenticity, the idea of having a location for shared resources made the experience more authentic. Respondents were asked, “What aspects of this training did you find to be the most authentic?” (Post TPD Survey, 2016-2017). Participant 8 SUR-SCH1 responded, “It was really helpful to have a centralized, online location to locate the shared resources” (Survey Data, 2017). This theme continued when they asked about usefulness. When asked to describe the “most useful” aspect of this session, 8 SUR-SCH1 shared, “It was really helpful to have a centralized, online location to locate the shared resources” (Survey Data, 2016-2017). The idea of having a place to share and locate resources was again the main focus when asked about future application of the session. Participant 8 SUR-SCH1 shared that the session would impact future practice by providing “a great resource . . . when they are looking for new curriculum ideas outside of their building” (Survey Data, 2016-2017).

With limited participant data from the Level 3 online PLC session, the interview data were analyzed to further explore the role of technology in TPD authenticity, usefulness, and application. Although the experiences shared in the interviews cannot be aligned to a specific SPLT model level, they give insight for those planning to use technology to deliver or enhance TPD.

#### **4.7.2 Technology and Choice**

It was shared in a number of interviews that technology provided *choice* for teachers in terms of content which made it more authentic, useful, or applicable for them. Participant 55 INT1 shared, “Last year they did pod casts . . . you could log in and view a mini PD session that someone in the district was giving . . . . The topics were a variety of things you could choose from” (Interview Data, 2017). Several interview participants shared that they use technology (e.g., the availability of twitter feeds, videos, webinars, MOOCs, and blogs) to find information

that they wanted to learn more about on their own time for TPD purposes (Interview Data, 2017). This allowed them to choose the content themselves, as their choice was fueled by their own learning interests.

#### **4.7.3 Technology and Flexibility/Availability**

Many teachers shared that the flexibility and availability that technology allows could alleviate barriers that exist in their personal lives, school day, and work load. Participant 55 INT1 shared that the ability to complete a TPD session “at home” was something that they liked (Interview Data, 2017). Participant 61 INT7 shared their experience in this area:

[I] participated in an online book study and it was perfect for me because I could do it in summer with the kids nap time. I didn’t have to get a sitter . . . . It is great because I don’t have to physically go there and I don’t have to battle traffic. It is a time saver. (Interview Data, 2017)

For participant 57 INT3, the absence of pressure was a great motivating factor: “They don’t pressure us to do the online trainings. I use them if I have time . . . . It can alleviate the work load when I have time . . . . I would rather do it at home and take my time and not have to be out of my classroom” (Interview Data, 2017). Participant 58 INT4 commented, “I have done PD in my pajamas late at night. I use videos a lot. Having it be available at any time is beneficial” (Survey Data, 2017). Participant 64 INT10 continued the flexibility theme by sharing that it “alleviates child care and the world load in the overloaded schools” (Interview Data, 2017). For participant 65 INT11, the flexibility was crucial:

You could access it on your own time. It would be nice if these types of online trainings could be offered in the summer so you could complete it more leisurely. If you had

access to it for a period of time like a webinar recorded would be useful. (Interview Data, 2017)

Participant 67 INT13 shared the same idea by saying, “I think if you could access the training at any time this could alleviate the stress of the work load” (Interview Data, 2017). Participant 63 INT9 shared, “I prefer PD in my pajamas. It is convenient. I do not like when it becomes required of me on my own time or expected of me. I do it because I like it” (Interview Data, 2017). It was clear that the *any time access* was important for the teacher-participants, and it alleviated some barriers to more traditional TPD delivery structures.

#### **4.9 Summary of Chapter 4**

This study’s main goal was to explore whether or not more student presence—infused in different delivery modes—connects to improved teacher perceptions of TPD and increased teacher application of TPD in the classroom setting. The data suggest that TPD in the higher model levels—which included student physical presence—leads to an increased application of teacher-learning in the classroom and increased confidence in attempting to apply newly learned techniques and tools (Focus Group Protocol, 2017; Interview Data, 2017; Survey Data, 2016-2017; Studio Classroom Debrief Notes, 2017). As shown in Table 16, as the level of the TPD session increased, there was also a corresponding increase in the number of responses that shared teachers’ intended or actual application of the learned content. The numbers in the table represent quotations in which teachers gave concrete and detailed explanations of how they intended to use the learned content of the TPD session or explanations of how they had already used the learned content of the session in the classroom with their students (Focus Group Protocol, 2017; Interview Data, 2017; Survey Data, 2016-2017; Studio Classroom Debrief Notes, 2017). In these instances the answers given explained actual classroom application ideas



or descriptions, versus more generic comments about intent to apply the learning. The quotation counts below show that there is an increase in detailed application quotations as the model level increases.

**Table 16**

*Application Related Quotations and SPLT Model Level*

SPLT Model Level	# of Application Quotations
Level 1	3
Level 2	3
Level 3	1
Level 4	3
Level 5	5
Level 6	8
Level 7	9

The combination of all data sources suggests that the teachers had increasingly positive perceptions of authenticity, usefulness, and application when students were physically present for TPD sessions (Focus Group Protocol, 2017; Interview Data, 2017; Survey Data, 2016-2017; Studio Classroom Debrief Notes, 2017). Student physical presence also yielded an increase in intended or actual application of the learning as the SPLT model level increased (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017; Studio Classroom Debrief Notes, 2017). These findings support previous research that demonstrated how one-time sessions do not provide the needed supports to evoke change in teachers' instructional practices and how they fail to support teachers at the level of classroom implementation (Glazer & Hannafin, 2006; Gulamhussein, 2013). The findings also support the claims made by several authors who stated that the short-term sessions have proven ineffective at changing teacher practice and strategies (Richardson & Placier, 2001; Boyle et al., 2004). Garet et al. (2001) also found that providing support during the school day may ultimately lead to more successful classroom applications of teacher learning (p. 921).

From the data, it is apparent that pertinent learning did occur at lower model levels (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017; Studio Classroom Debrief Notes, 2017). However, the data also suggest that the TPD learning could be more effective when lower model level sessions are followed up with higher level SPLT model sessions that occur in the classroom during instructional time with students physically present (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017; Studio Classroom Debrief Notes, 2017).

This finding supports similar findings by Gulamhussein (2013), who explained that TPD should be “significant,” “ongoing,” and could require as much as 50 hours of practice and coaching for a change in instruction to occur (p. 14). It also supports findings by several researchers who shared that the lower model level sessions mainly occur outside of the instructional setting and rarely tie directly to the teachers’ instructional context. They go further to explain that the more traditional lower model level sessions typically do not take into account the forces at work in the teachers’ actual school settings (Corcoran, 1995; Little, 1989, 1994; Wilson & Berne, 1999, p. 174). The in-classroom follow up with a coach or peer observation may remedy the lack of connection to their teachers’ own context and provide TPD experiences that are on-going in the classroom setting, which may ultimately lead to changes in instructional practices.

Although the findings suggest that more TPD offered at higher level SPLT model levels can lead to an increase of intended and actual application, there is one surprising additional finding that should be considered when planning these higher level (levels 5–7) SPLT sessions. Teachers shared that the students being physically present was not the only important component at the higher model levels. Almost equally important was the ability to have a pre- or post-

discussion of what occurred during the in-classroom TPD session (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017; Studio Classroom Debrief Notes, 2017). Some teacher-participants shared that team planning or a pre-observation discussion about what would happen during the in-classroom TPD was an important component in terms of their perception and future application of the TPD session (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017; Studio Classroom Debrief Notes, 2017). The importance of pre-session collaborative meetings was noted at Levels 5 and 7 (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017; Studio Classroom Debrief Notes, 2017). Teacher-participants also stated that the debrief—or post-TPD discussion—was vital to their learning at Levels 6–7 (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017; Studio Classroom Debrief Notes, 2017). Inclusion of this peer discussion time—or a coach-mentee discussion session—was a surprising finding in the study and should be considered a key component in sessions occurring at Levels 5–7 of the SPLT model.

Another surprising finding came in the key component of collaboration. Teachers believed that collaboration in general led to a more positive perception of TPD in terms of authenticity, usefulness, and application (Survey Data, 2016-2017; Interview Data, 2017). However, the perception data also suggest that collaboration with an administrator enhanced the perception of sessions at which curriculum alignment/mapping was the goal (Survey Data, 2016-2017; Interview Data, 2017). Having an administrator as the session moderator was positively perceived by the teacher participants in this type of Level 3 SPLT model session, and this feature should be included when planning effective TPD with a curriculum mapping goal (Survey Data, 2016-2017; Interview Data, 2017).

The study’s findings do support the increased TPD offerings from higher model levels (5–7), but they do not suggest completely doing away with the lower model levels (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017; Studio Classroom Debrief Notes, 2017). The overall data support using a variety of TPD sessions at various model levels based on the intended learning targets of the TPD (see Table 17). The data also suggest that there are *key components* that should be incorporated at each SPLT model level to increase instructional effectiveness.

To frame these results further, Table 17 shows a summary of the key components to help inform administrators and TPD planners when exploring the options of TPD sessions that they present to the teachers they serve. Administrators or TPD planners—or even both—should make their SPLT model level and session delivery choices based on the areas of learning which are being addressed by the session.

**Table 17**

*Key Components of TPD by SPLT Model Level*

## KEY COMPONENTS OF TPD BY SPLT MODEL LEVEL

TPD SPLT MODEL LEVEL	TEACHERS STATED THAT TPD IS MOST EFFECTIVE WHEN IT...	BEST SUPPORTS TEACHER LEARNING IN THE AREA(S) OF...
<b>LEVEL 1</b> District outsider presents on a topic selected by administrators on a non-instructional TPD day	<ul style="list-style-type: none"> <li>Provides resources and materials</li> <li>Is presented by an experienced and knowledgeable presenter</li> <li>Makes clear connections to the classroom/district context</li> <li>Shares examples of student work &amp; classroom artifacts</li> </ul>	<ul style="list-style-type: none"> <li>Introducing new curriculum &amp; tools</li> <li>General overview &amp; introduction</li> </ul>
<b>LEVEL 2</b> Teacher presents session stemming from personal experiences during a non-instructional time	<ul style="list-style-type: none"> <li>Is presented by an experienced and knowledgeable presenter</li> <li>Includes "seeing" a lesson (i.e. video)</li> <li>Provides materials and resources for immediate use</li> <li>Makes clear connections to the classroom/district</li> <li>Provides opportunity collaboration</li> <li>Includes "Real Life" content</li> </ul>	<ul style="list-style-type: none"> <li>Introducing new curriculum &amp; tools</li> <li>New movements &amp; initiatives</li> <li>General overview &amp; introduction</li> </ul>
<b>LEVEL 3</b> Teacher collaboration in a PLC style session sharing student work, lesson materials, and anecdotes	<ul style="list-style-type: none"> <li>Includes collaboration with grade level/content peers</li> <li>Shares relevant content</li> </ul>	<ul style="list-style-type: none"> <li>Curriculum mapping</li> <li>Curriculum adoption</li> <li>Resource sharing</li> </ul>
<b>LEVEL 4</b> Presenter models a mock lesson for teachers on a TPD Day or shares a video of classroom teaching	<ul style="list-style-type: none"> <li>Provides practice in application</li> <li>Includes "seeing" a lesson (i.e. model-mock lesson/video)</li> <li>Provides opportunity for collaboration</li> <li>Makes clear connections to the classroom/district</li> <li>Sharing of student artifacts</li> <li>Shares relevant content</li> </ul>	<ul style="list-style-type: none"> <li>Modeling use of curriculum &amp; tools</li> <li>"How to" set up &amp; apply a new tool</li> <li>Introduce and apply a new strategy</li> </ul>
<b>LEVEL 5</b> Teacher or Coach models a lesson for another teacher with students in the classroom	<ul style="list-style-type: none"> <li>Includes a push-in/team teaching session in the teachers' own classrooms with their own students</li> <li>Provides time to collaborate with a coach or expert teacher</li> <li>Includes a pre/post discussion of the in-classroom learning experience</li> <li>Shares relevant content</li> </ul>	<ul style="list-style-type: none"> <li>Learning new instructional techniques</li> <li>Implementing new curriculum components</li> <li>Learning a new technology tool</li> <li>Trying a new methodology</li> </ul>
<b>LEVEL 6</b> Lesson study, learning walks, instructional rounds, partner teachers visit each other's classrooms	<ul style="list-style-type: none"> <li>Provides time to see what peers are doing in other classrooms, a variety of grade-levels, and in other schools</li> <li>Provides a combination of announced/scheduled and unannounced/unscheduled visits to other classrooms</li> <li>Allows the focus of the observation chosen by the observer</li> <li>Includes a pre/post discussion that allows the observer to discuss what they saw and ask questions</li> <li>Observes an experienced &amp; knowledgeable teacher in teaching activities with students</li> </ul>	<ul style="list-style-type: none"> <li>Learning classroom management Tools</li> <li>Classroom design &amp; set up ideas</li> <li>Seeing a school learning continuum</li> <li>Learning ways to set up school schedule to support instructional components (i.e. RTI, Shared Planning Time, etc.)</li> <li>Transferring a learned instructional technique from a general session to classroom application</li> </ul>
<b>LEVEL 7</b> On-going studio classroom model that engages teachers in a discussion about practice	<ul style="list-style-type: none"> <li>Occurs in teachers' personal school setting with their own school, students, and peer-teachers</li> <li>Includes seeing a lesson taught in the teachers' own context with like peers in a similar grade-level/content area</li> <li>Provides time to collaborate with like peers/grade level peers</li> <li>Includes a pre/post discussion that allows the observer to discuss what they saw and ask questions</li> </ul>	<ul style="list-style-type: none"> <li>Implementing new instructional techniques</li> <li>Implementing new curriculum components</li> <li>Implementing a new technology tool</li> <li>Reflecting and revising the use of instructional tools and techniques</li> </ul>
<b>Technology Delivered TPD</b> Delivered via a Learning Management System, Social Media, Webinar, Blogs, Online Videos, etc.	<ul style="list-style-type: none"> <li>Enables the sharing resources (<i>A digitally shared resource library</i>)</li> <li>Provides a variety of choices in topic/content</li> <li>Allows flexible scheduling &amp; location for participation</li> </ul>	<ul style="list-style-type: none"> <li>Grade level sharing (PLC)</li> <li>New tools, techniques, &amp; content</li> <li>Sharing New Ideas</li> </ul>

## **Chapter 5**

### **Theoretical Discussion**

#### **5.1 Overview**

This chapter presents an interpretation of the findings from Chapter 4 through learning theories presented in the SPLT model. The chapter specifically explores the key components found in each model level through some of the main theories of learning presented in the left column of the SPLT model.

#### **5.2 SPLT Model Learning Theories and TPD**

The first section of this chapter explores the Key Components table in Chapter 4, using the relevant learning theories that the components align with in the SPLT model. The findings reveal that each level with its corresponding learning theories has specific components and supports specific types of learning targets.

##### **5.2.1 Behaviorism in SPLT Level 1**

The TPD activities at Level 1 represent more traditionally behaviorist views of learning. As explained by DeLay (1996), education is applying external methods and techniques (stimuli) to evoke a response or the idea that a “treatment” will evoke change (DeLay, 1996). Behaviorist views of learning are further explained by Schunk (2012), who said that learning is explained by conditioning theories—or reactions to the environment—and is also a process of forming connections between stimuli and responses (Schunk, 2012, pp. 114–118). The Level 1 sessions were presented on a projector in a presentation-style format; during the sessions, the teachers were expected to view the presentation (the treatment), which was given with the intention to evoke a change-response in their teaching (Observational Field Notes, 2016-2017). These Level

1 sessions were found to provide learning experiences for teachers at a basic, general overview level. In their responses, the teachers shared some components that may elicit a response or a change to their practice. They shared that the presenter should be knowledgeable, make clear connections to the classroom, and provide examples of student work and resources to use in the classroom (Survey Data, 2016-2017, Interview Data, 2017). The behaviorist-style sessions were found to be useful for general introductions or overviews of new curriculum or introducing new tools to use in the classroom (Survey Data, 2016-2017, Interview Data, 2017, Observational Field Notes 2016-2017.)

### **5.2.2 Constructivism and Social Constructivism in SPLT Levels 2–3**

Constructivism, in terms of learning, is making meaning out of experiences that alter the educative event to fit in with past versions of their world view (DeLay, 1996). It is the process of eliciting clarification and constructing new ideas internally (DeLay, 1996). Constructivism implies that individuals structure learning experiences to challenge thinking so that learners can construct new knowledge (Schunk, 2012 p. 274).

At Level 2 sessions in the SPLT model, key components emerged that support the constructivist view of learning. At Level 2, teachers shared that the content should be rooted in “real life” experiences (Survey Data, 2016-2017). It is from these real life scenarios that they make new meaning, which is done by drawing upon previous experiences to build new knowledge.

According to Schunk (2012), constructivism “contends that learners form or construct their own understandings of knowledge and skills . . . . Piaget’s theory stresses equilibration, or the process of making internal cognitive structures and external reality consistent” (Schunk, 2012, p. 276). This thought couples with the importance of having an experienced or

knowledgeable presenter for Level 2 sessions. The presenter, who draws from their past experiences, supports the teachers in constructing new knowledge by providing examples of how the new information looks in the world; in doing so, the presenter brings the teachers to arrive at a new understanding of how the knowledge applies to their teaching. Schunk (2012) also stated that “constructivism requires that we structure teaching and learning experiences to challenge students’ thinking so that they will be able to construct new knowledge” (Schunk, 2012, p. 274). Teachers shared that the key components needed for constructing new knowledge at this level of the model included “seeing a lesson” through video and seeing materials to determine how they would be used in the classroom. It was important that the topic should make clear connections to their own classroom setting (Survey Data, 2016-2017, Interview Data, 2017, Observational Field Notes 2016-2017). In constructivist learning, the focus is on big concepts. Learning activities usually involve primary sources of information and materials (Schunk, 2016). With this point in mind, Level 2 sessions should focus on new movements and initiatives in a district or on the introduction of new tools and curriculum. These sessions should connect to previous knowledge in order to support teachers as they reach a new understanding of how these initiatives and tools can support learning in their classrooms.

Social constructivism relies on socially-mediated learning experiences that involve collaboration. An important application area is peer collaboration, which reflects the notion of collective activity (Schunk, 2012, p. 246). This notion applies very specifically to the key components of Level 3 and also sessions at other model levels that include pre- or post-discussion components. The key ingredient for TPD at this level is collaborative time with like-peers—meaning grade-level or content peers (Survey Data, 2016-2017; Interview Data, 2017; Observational Field Notes). The suggested learning targets for TPD at this level are peer-



collaborative curriculum mapping, selecting or adopting a new curriculum, and sharing of resources, such as lesson ideas, lesson plans, and materials (Survey Data, 2016-2017; Interview Data, 2017; Observational Field Notes, 2016-2017).

Technology-delivered TPD, in the case of this study, also was a Level 3 component, and it focused on collaborative sharing of resources (Survey Data, 2016-2017; Interview Data, 2017; Observational Field Notes, 2016-2017). The idea of socially constructing knowledge through the sharing of curriculum ideas and materials dominated the Level 3 technology-delivered session data and field notes (Survey Data, 2016-2017, Interview Data, 2017, Observational Field Notes, 2016-2017).

#### **5.2.2 Social Learning, Situated Learning, and Sociocultural Aspects in SPLT Levels 4-7**

Social learning theory states that behavior and learning can be explained in terms of a continuous reciprocal interaction between a person and the environment (Tu, 2000, p. 4). Human behavior is impacted by observation and by experience (Tu, 2000, p. 4) At Level 4, the learning group was formed based on the environment and school context in which the teachers work each day (Observational Field Notes, 2016-2017). At this level, the key component included a mock lesson activity, in which teachers took a running record from a student video who was in their grade-level grouping, namely K–2 (Observational Field Notes, 2016-2017). They discussed this activity within the social grouping of their like/grade-level peers (Observational Field Notes, 2016-2017). One of the key components shared at this level fits well within the ideas of social learning theory; this component involved observing a teacher on video who completed a running record and a comprehension conversation (Observational Field Notes, 2016-2017). Both of these

activities fit the social learning theory premise and were mentioned as key components to include in TPD planning at Level 4.

Situated learning applies to Levels 5 and 6 most specifically, and it also bleeds into Level 7 as well. In situated learning, acquiring new knowledge is a matter of making meaning from the real activities of daily life (Stein, 1988). By embedding the learning, learners “live” the subject matter in the context of real-world teaching situations (Stein, 1988).

For Level 5, the key component was push-in/team teaching within the teacher’s own classroom (Survey Data, 2016-2017). The teacher perceptions implied that this learning theory best applied to the learning experiences which targeted using new instructional techniques, implementing new curriculum tools and components, learning a new technology tool, or trying out new teaching methodologies (Interview Data, 2017, Observational Field Notes, 2016-2017, Survey Data, 2016-2017).

Level 6 participants felt that although the learning theory was situated, learning should occur in the classrooms and in schools of others in order to gain both an outsider’s perspectives and ideas that could be situated in their own learning contexts (Interview Data, 2017, Observational Field Notes, 2016-2017, Survey Data, 2016-2017). The idea of viewing a similar context outside of the school is best applied when seeking new classroom management techniques, classroom set-up, and classroom arrangements to gain new ideas on structuring/scheduling new instructional components, such as RTI time (Survey Data, 2016-2017, Interview Data, 2017, Observational Field Notes, 2016-2017).

At Level 7, the ideas of situated learning blend with sociocultural learning ideas (Survey Data, 2016-2017, Interview Data, 2017, Observational Field Notes, 2016-2017). Sociocultural theories suggest that learning, thinking, and knowing are relationships among people in activity

within—and as a result of—the socially and culturally structured nature of the world we live in (Wang, 2007, p. 47). In the case of this study, the mock studio classroom was a combination of situated and sociocultural learning in action. The Level 7 studio classroom was a clear combination of situated learning—or embedded learning—where teachers participated in TPD that occurred in their school and in their own grade level, and that involved collaboration with grade-level peers (Observational Field Notes, 2016-2017). The cultural context of their own school was innately part of the learning experience. Teachers at this level felt that a key component of the TPD was the fact that the learning took place in their own school, with students from their own school/grade level, and with their peer teachers (Survey Data, 2016-2017, Interview Data, 2017, Observational Field Notes, 2016-2017). They felt that the blend of situated and sociocultural learning theories best served learning targets such as implementing new instructional techniques, implementing and revising instructional techniques, implementing the use of new technology tools, and reflecting upon best uses of instructional tools (Survey Data, 2016-2017, Interview Data, 2017, Observational Field Notes, 2016-2017).

## **5.4 Summary of Chapter 5**

In this chapter, an interpretation of the findings from Chapter 4 were interpreted through learning theories presented in the SPLT model. It explored the key components found in each model level through some of the main theories of learning presented in the left column of the SPLT model. The exploration of these theories suggests that the learning targets ultimately best determine which learning theory should be the basis for the instruction. A variety of learning theories were at play throughout the study, and each theory lent itself to different learning goals.

## **Chapter 6**

### **Conclusions, Limitations, and Future Research**

#### **6.1 Overview**

This chapter explores the limitations of the study, the main conclusions for TPD practice, and the suggested directions for future TPD research. This chapter is meant to inform future TPD practice and provide recommendations for TPD research that could further enhance the field of TPD. Before the final conclusions for practice are shared, a look at the limitations from this study is warranted.

#### **6.2 Limitations**

As with the nature of research itself, limitations presented themselves in the planning and implementation of this study, and these must be discussed and considered when examining the results.

First, a study that occurs in school district settings faces limitations based on the structure, goals, and procedures that are in place in these settings. Opportunities explored at each model level were mostly limited to what was already planned to be provided by the school districts with the exception of two sessions—namely one Level 6 tier observation session and the Level 7 session studio classroom. These two sessions were funded by the researcher and had planning supports from the researcher in order for them to occur. Although it is unclear whether the teacher-participants had knowledge that the activity was funded by the researcher, it should be noted that this could also have had an impact on the perceptions of the teacher-participants. It was difficult to advance to higher model level sessions without funding support and incentives provided to school districts, whose budgets and TPD plans were in place for the year prior to the

study. This is an understandable limitation when asking to do a study in a school district that has a TPD plan and a budget in place, but it is still somewhat of a limitation to the study. The sessions could rarely be tailored to include components of each model level, given that the school districts controlled the content, delivery, and all aspects of most TPD sessions. This point led to a post-TPD matching of the sessions presented to model levels based on the observed characteristics.

Second, the inability to account for repeated participation was another limitation. The fact that teachers may have attended multiple TPD sessions being offered in their district and the fact that they could also have participated in an interview and the end-of-the-year survey rendered the researcher unable to calculate an exact total number of participants. The anonymity provided by the online survey protected teacher-participant privacy, but it also resulted in the inability to capture how many teachers participated more than once. Even when prompted to share the other sessions which they completed surveys for, answers were not always accurate or complete. It can be estimated that there were at least 54 different teachers who participated in the study.

Next, the minimal participation in the survey after the technology session made it difficult to say what teachers' perceptions were in terms of the online grade-level PLC experience. With only one respondent to the post-TPD survey, it was difficult to determine what would be the most useful, authentic, and applicable features about the session. The majority of the data exploration in technology came from interview questions that did not directly relate to the session, as was noted in the results. Although useful information was obtained, a firm grasp on what to consider in a Level 3 online grade-level PLC should be further explored.

Another limitation of this study was the absence of how students were impacted by the varying forms of TPD and their corresponding levels of student presence. Teacher-participants

described how the various levels of the model, and the varying levels of student presence, impacted their learning as teachers. When analyzing the data, no participants explained how these experiences impacted the students themselves in terms of how the students received the instruction that was delivered as a result of the sessions. This somewhat ironic in a study that focused on levels of student presence in TPD. There were mentions of how students seemingly were not impacted by the number of adults/teachers in their classrooms in some sessions and their comfort in asking questions to the teacher-participants in the room, but no mention of how these sessions actually impacted the students themselves. This may be due in part to the fact that this topic was not addressed in survey, interview, or focus group questions. In future research, questions that address the potential impact on students may be warranted.

Lastly, the depth and breadth of teacher responses varied based on the participant and may have impacted the results. Some participant answers were very detailed and extensive, while others were short and vague. This happened at a variety of levels in the model, and this could have impacted the results if respondents at some levels put more information into their responses than those in other levels. Although this depth and breadth is beyond the researcher's control, it does lend itself for consideration when exploring the frequencies of responses and content in the model exploration.

### **6.3 Suggestions for TPD Practice**

The SPLT model provides a framework of TPD experiences that occur in the field of TPD. This paper sheds light on how teachers perceived the authenticity, usefulness, and application at each model level. From this information, it is important to extract the components that enhanced the teachers' perceptions of the TPD sessions in order to provide meaningful and

applicable learning experiences for practicing educators. The model itself is a continuum, a guide for providing TPD in a variety of ways in a school system. In each school system, there are supports and barriers to each level, and therefore the perception data is grouped in a way to maximize the learning experience provided by each model level for use in today's school climate. Ideally, moving towards providing experiences at higher model levels may be the most authentic, useful, and applicable (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017), particularly to educators. However, this type of TPD requires supports and systems that not all districts and schools have in place (Darling-Hammond et al., 2009; Gulamhussein, 2013). The reality of availability, time, and resources for TPD may impact the decisions made in terms of selecting and providing TPD sessions for each unique school setting. With the variety of resources available to districts and with the nature of changing resources, the following recommended components at each model level are made. The level session component for all seven levels was shared in order to ensure that regardless of the model level presented, the most authentic, useful, and applicable experiences are created for practicing teacher-learners.

### **6.3.1 SPLT Model Level Suggestions for TPD Practice**

At each model level, certain components led to a more authentic, useful, and applicable experience for the teacher-learners (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017). Although the higher model levels yielded more actual or intended application in the classroom, all levels of the model had value for teacher learning. For administrators or teacher-leader in charge of planning and preparing TPD sessions for practicing educators, it is important to include these thematic aspects into the TPD sessions that are provided for teachers (see Chapter 4, Table 17 for a summary).

In Level 1 experiences, regarding the more traditional forms of PD seen on in-service or institute days, it will be vital to include several elements to make experiences more authentic, useful, and applicable to teacher-learners. The content of the session should meet an immediate need that teacher-learners can apply in their professional settings. In order to accomplish this, having an understanding of what the teachers' perceived needs are could guide the content and focus of Level 1 sessions. New curriculum requirements are often taught at the Level 1 sessions. These sessions should be provided by an experienced presenter who has proven experience teaching with the curriculum tools and content. The content should be directly connected to the unique classroom settings or grade level and to the district goals. Sessions should provide resources and materials to use immediately in the classroom. Lastly, the session should not only include relevant resources to take away from the session, but it also should include the sharing of student artifacts.

In a Level 2 SPLT model TPD session, some of the same aspects as above were important in terms of making the sessions more effective. First, *seeing the lesson in action* made the learning more authentic. Sessions should include a model lesson where teachers act as students or share a video of how the tool was used with students in an actual classroom. The content should be *real life* and easily applicable to the instructional situation that the teachers work in (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017).

At Level 3, collaboration was the key to authenticity, usefulness, and application. These sessions should be on-going, such as a grade-level PLCs. The TPD should revolve around interaction and time spent collaborating with like-peers. Teachers also mentioned that collaboration with administrators was useful during curriculum mapping sessions and that having



them as a moderator enhanced the session for them (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017).

In Level 4, the practice and application of content that was connected to learners' needs and the classroom/district goals was what made the sessions authentic and useful for teachers. The topics and presentations at this level should make clear connections to the classrooms as well as to the district's goals and vision. Future TPD planning at this level should include guided practice with the content or curriculum tools being shared with teacher learners. This level should also include aspects of *seeing* the lesson in action through the use of video that shows actual instruction with the content or curriculum. Collaboration with peer-learners was also important at this level; in some sessions, teachers experienced guided practice using a tool, and then they had the opportunity to discuss the experience with peers (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017).

At Levels 5 and 6, the focus shifts to what TPD includes when it is provided within a typical school day and in classrooms where students are physically present. In these levels, teachers shared that students being physically present for the TPD was critical to the authenticity and application of their learning. For Level 5, the session was most effective when it occurred in the teachers' own classrooms. The coach team teaching format was best when targeting new instructional techniques. Thus, coaching and team teaching may be the best approach. The guided practice was key to future application of the learned techniques. It is important that the person providing the TPD or being observed should be an experienced presenter with proven success in implementing the curriculum or tool with students in a classroom. These sessions should include a pre-or post-collaborative discussion of the in-classroom experience in order to enhance their effectiveness and future application.

For Level 6, the teachers sought to learn from other classroom settings and different schools in order to gain new ideas from outside their classrooms. These sessions are best for TPD in which teachers seek new organizational strategies, classroom management strategies, and daily structure formats (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017). Administrators or teacher-leaders in charge of planning TPD at Levels 5 and 6 should prioritize providing time for pre- or post-discussions between the coach or peer observers and the teacher learners in order to focus on what the teachers wish to learn. The debriefing should allow for questions and discussions of classroom application.

In Level 7, the main components to the studio classroom model were what made the experience more effective. This form of TPD should occur in the grade level and in the school setting where the teacher is practicing. TPD planning at this level should always include a pre- or post-discussion among the studio classroom participants in order to prepare for and focus the in-classroom experience. The teacher-participants felt the debrief discussion with peers and the teacher who modeled the lesson were equally important to the authenticity, usefulness, and application of the learning (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017). This studio classroom session should occur with like-peers who have grade levels and content in common. TPD planners should ensure that the teachers are provided adequate time to have pre-observation discussions and planning sessions. This time was what made the in-classroom experience more useful, as teachers had time to discuss, ask questions, and share ideas before and after the in-class experience (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017). It is clear that the students were physically present in this model level, and this point was noted by teacher-participants as the most authentic aspect of

this model level session (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017).

### **6.3.2 Technological Applications for TPD Practice**

Although data from the post-TPD survey were limited, some recommendations can be made when combined with the interview data in order to highlight which aspects should be included in technology delivered TPD sessions (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017). The idea of providing TPD via an LMS, through social media, podcasts, or other technology-delivered content was found to have several themes that TPD planners should include in their sessions or when they are choosing which technology sessions to share with teachers.

The first aspect of technology-delivered TPD which teachers consider to work best for them was the flexibility it provided in terms of when and where the session could be completed. Administrators who are planning a technology delivered TPD session should ensure that this tool is available for an extended period of time. Teachers have expressed that if they had more time to view a podcast or webinar type session, they could learn more and explore the content more deeply. They also shared that they appreciated the ways in which this type of TPD alleviated barriers in their own school and personal lives, such as finding time, child care, and commuting to a location. Being available in an on-demand way was the most appealing aspect of technology-delivered TPD.

Providing a variety of choice in terms of content is also important when providing technology delivered TPD. Administrators should consider providing a centralized location for this technology-delivered TPD content that allows for a variety of session choices which teacher-learners can select from.

Too much information being available was shared as a barrier by teachers as well. Administrators or TPD planners should consider making sure the choices are aligned with the teacher needs in their setting or district. The choices should be limited to an extent and should focus on what teachers need while still offering some choice. Teachers suggested that being asked what they wanted to learn about may enhance the choices offered by their districts (Survey Data, 2016-2017; Interview Data, 2017; Focus Group Protocol, 2017). TPD planners should consider using surveys to inform the choices provided to teachers. The ideas of offering targeted choices and allowing flexible participation over an extended time period should be considered when planning and creating technology-delivered TPD.

#### **6.4 Suggestions for TPD Research**

With the nature of qualitative research, future exploration of the model in different settings and in other ways may be warranted to fully understand its complexity. Also, with new forms of TPD constantly emerging and with new and different delivery methods being employed in the field, I suggest future research into TPD methods that were not observed in this study. After completing my analysis, I suggest the following areas of future research and investigation to better support TPD planners, administrators, and teacher-leaders as they consider what TPD experiences to offer to their teacher-learners.

##### **6.4.1 New Forms of TPD Emerging and the SPLT Model**

Although the model covered an extensive variety of TPD sessions, new forms of TPD emerge constantly and hence were not observed in this study. New presentations of TPD to be explored could be sessions such as Ed Camps, BreakOut EDU, or staff challenge models (e.g., races or team challenges) as forms of TPD. There are emerging and creative presentations constantly being used for TPD sessions. There may also innovative new student-led models of

TPD beginning to emerge. According to some teacher professional development scholars, youth-mediated TPD and student leadership models are being explored in New York, at schools such as Fannie Lou Hamer School (T. Lovelace, personal communication, June, 25<sup>th</sup>, 2018). These areas will need to be explored to see where they would fit into the SPLT model, to see if these new forms warrant an expansion of the SPLT model, and what teachers perceive to be the most authentic, useful, and applicable about these sessions.

#### **6.4.2 Differentiated TPD and the SPLT Model**

One area that was not explored in this study was the idea of differentiated session content for TPD sessions. Although the higher model levels have some differentiation based on teachers' needs—particularly the levels in which coaching is in play—it is largely absent from the study sessions. Teacher choice was emphasized, but tailoring sessions to actual teacher learning levels and needs, as done with students in the classroom, was not seen on a large scale in this study. The idea of differentiation for teacher learning should be explored and juxtaposed to the model for further insight into the best practices for TPD delivery with practicing teachers.

#### **6.4.3 Technology-Delivered TPD and the SPLT Model**

In the data collection, the number of respondents to the technology-delivered TPD was lower than anticipated. This made the analysis of how TPD delivered with technology was perceived rather challenging. It is my recommendation that the use of technology to deliver TPD within the SPLT model levels be further explored to fully understand what aspects of this delivery method impact teacher perceptions of authenticity, usefulness, and application.

#### **6.4.4 Student Physical Presence in TPD and Student Achievement**

One area not explored by the study was how student physical presence in TPD impacts student achievement. Ultimately when providing TPD, the goal is to improve the teachers'

abilities to increase student achievement through improved instructional techniques. This study explored the teacher perceptions of TPD, but no quantitative measure of how the higher levels of SPLT model impact student achievement. A study of this nature would shed light on the impact of the more job-embedded TPD delivery methods and how it impacts student achievement.

#### **6.4 Dissertation Conclusion**

In conclusion of this study, I reflect on what I have learned about the nature of TPD as well as all that goes into the process of planning and presenting TPD sessions. The need to provide teachers with effective and meaningful learning experiences has become extremely important. Teachers require TPD experiences that help them navigate a growing list of student performance standards and standardized tests, which can determine their perceived successes and failures (Crawford, 2015; Terehoff, 2002). Teachers seek opportunities to grow in their ability to deliver instruction in effective ways, and they desire TPD sessions that have application to their classroom activities. The need for applicable and effective TPD for practicing classroom teachers has been increased by the growing base of student learning methodologies, the new strategies to teach diverse student populations, and the ever-changing world of technology (Crawford, 2015).

The study itself brings to life a variety of TPD methods, topics, and how they fit into the SPLT model. It is important to note that there is no *one-size-fits-all* model for TPD in schools today. The dynamic needs of the students who are being instructed, the learning needs of teachers who will instruct them, and the ever-changing landscape of district infrastructures and funding are most likely to impact the choices made in TPD planning. It is important to see the model as a continuum and to use the thematic components from each model level as a guide to inform the planning of TPD. The TPD sessions should meet the needs of teachers and students

and should co-exist within the structures that are present in the district in which the sessions take place. TPD occurring at each level had differently perceived value and differing influential components that should be included to ensure maximized benefit for teacher-learners.

The goal of the study was to see how teachers differently perceived authenticity, usefulness, and application throughout the model. It also explored how student physical presence impacted this perception. The study found higher application at Levels 5–7 of the model, but these levels may face barriers in school district TPD structures. District budgets, infrastructure, and resources shape the landscape of what district can offer teacher-learners, and thus this study informs how to maximize the effectiveness of TPD at each model level.

In an ideal world, more TPD based in a classroom setting would increase the authenticity and application for educators by allowing them to *see* the learning in a realistic situation. However, in the reality of school infrastructure today, this type of TPD is not always possible. This fact stressed the importance of exploring all model levels to look for key components to include at each level. Exploring the data in this way may ensure that regardless of the level of student presence, teachers are receiving the TPD that can support the instruction of the students whom they serve. It was the hope of this study to better inform TPD planners in their efforts to provide meaningful and impactful TPD to their teachers, thereby providing teachers a better preparation for a changing world full of unique students.

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## APPENDICES

### Appendix A: Study Documents, Surveys, Interviews, and Focus Group Protocol

Duquesne University  
Institutional Review Board  
Protocol #2016/10/12  
Initial Approval: 11/04/2016  
Expires: 11/03/2017



DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

#### CONSENT TO PARTICIPATE IN A RESEARCH STUDY

**TITLE:** TEACHER PROFESSIONAL DEVELOPMENT (TPD): THE IMPACT OF DELIVERY STRUCTURE, STUDENT PHYSICAL PRESENCE, AND TECHNOLOGY ENHANCED INSTRUCTION

**INVESTIGATOR:** Rebecca Durbin  
Doctoral Candidate  
Duquesne University  
durbinr@duq.edu

**ADVISOR: (if applicable)** Dr. Jason Margolis  
Professor and Department Chair  
School of Education, Department of Instruction and Leadership in Education  
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412-396-6106

**SOURCE OF SUPPORT:** This study is being performed as partial fulfillment of the requirements for the doctoral degree in Education at Duquesne University.

**PURPOSE:** You are being asked to participate in a research project that seeks to investigate the potential impacts and perceptions of different delivery methods of teacher professional development and the supports and barriers to varying types of teacher professional development.

In order to qualify for participation, you must be:

- A certified teacher currently teaching in a school or district who is actively engaged in professional development activities
- A certified administrator who is involved in the planning, supervision, or implementation of professional development in a school or district.
- A director/assistant director/or educational specialist of an accredited early childhood center.
- A lead or support teacher of a pre-school or pre-k classroom.

This portion of the study involves participation in or the planning/supervising of a variety of teacher professional development activities and series of online survey questions.

The researcher may also invite you to participate in a variety of future study activities that may include:

- professional development training opportunities
- future surveys
- focus groups
- interviews

Agreeing to this form implies that you give your consent to participate in these future activities with out signing a future consent form, however you are under no obligation to participate in future study activities.

In order to qualify for participation, you must be involved in the field of education as a teacher or administrator who is actively involved in planning or participating in teacher professional development activities in a school.

#### PARTICIPANT PROCEDURES:

To participate in this study, you will be asked to:

- Participate in required or optional professional development training activities in your school or district.
- Complete an online survey, by the deadline designated on your paper invitation, from your home or school computer about teacher professional development online (15-20 minutes).

You may be invited, but not required, to participate in future study activities offered by the school/district or the researcher. These activities will happen at your school/district before/after school, during school hours, or in an online classroom environment. The activities may include:

- professional development training opportunities (30-60 minutes)
- future surveys (15-20 minutes)
- focus groups (20-30 minutes)
- interviews (20-30 minutes)

All interviews, surveys, and participation will ask you to share your personal experiences and perceptions of various forms of teacher professional development. No recordings of these sessions will be made with audio or video equipment. Only researcher notes and your survey responses will be collected.

These are the only requests that will be made of you.

#### RISKS AND BENEFITS:

This project is not expected to involve any risks or harm beyond those of everyday life. No identifying information will be attached to any data collected in survey form. Names and personal information from future activities will be kept confidential with pseudonyms and computer generated participant numbers. While there may be no direct benefit to you, your participation may contribute to the research that exists on teacher professional development. The school districts



may also request survey results for their own use in planning future professional development, however all responses will be kept anonymous from the reader to ensure the privacy of all participants.

COMPENSATION:

The non-monetary compensation for participation is as follows for completion of the following activities:

- Surveys following PD Session: Enter to win a 25\$ gift card to Amazon.com or iTunes (Winner's choice- 4 winners per teacher survey for each TPD Day, 2 winners per administrator survey per district/school)
- Before/After School TPD Modeling Session: 25\$ Gift card to Amazon.com or iTunes (participants choice)
- Lunch and Learn Session: 20\$ gift card to Amazon.com or iTunes (participants choice) and lunch provided
- Individual Interview: 25\$ gift card to Amazon.com or iTunes (participants choice)
- Focus group: 20\$ gift card to Amazon.com or iTunes (participants choice)
- Online Session/training & follow up Survey: 30\$ gift card to Amazon.com or iTunes (participant's choice)
- Push-In Session and Follow Up Survey/Interview: 25\$ gift card to Amazon.com or iTunes (participant's choice)
- Studio Classroom Session and follow up/Survey Interview: 25\$ gift card to Amazon.com or iTunes (participant's choice)
- Follow-Up Survey (end of School Year): Enter to win a 25\$ gift card to Amazon.com or iTunes (Winner's choice- 4 towards end of school year for teachers in each district/school)

Participation in the project will require no monetary cost to you.

CONFIDENTIALITY:

No information will be collected or recorded which can be directly linked to you or your identity, and your ip address will not be recorded. School information will be described in generic terms with no names or exact locations. General school demographic information (ex. size, population, demographics) and generalized geographic (ex. suburban Chicago) information may be listed in future writings and publications. Your identity will not be exposed in the data analysis. Your responses will only appear anonymously in future writings and publications.

At the time of participation, SurveyMonkey, the online survey application, will assign an automated participation identification number (ID) for each participant. All of participants' survey responses will be recorded in association with participation ID. Data transmitted to SurveyMonkey will be downloaded to the investigators' password protected computers, password protected Dropbox storage, password protected cloud-based and software- based programs for analysis and will be securely maintained for a minimum of five years.

If you wish to enter the raffle, you will need to provide your email address at the end of the survey. The raffle sign-up link will take you to a separate page from the main survey and there will be no way that your identity will be associated with your survey responses.

RIGHT TO WITHDRAW:

You are under no obligation to participate in this study. Due to the anonymous nature of this survey, the investigators cannot directly link you individually to any completed survey responses. If you wish to retract or discontinue your participation in the study, you may do so at any time. If you choose to withdraw during the study, any data already collected will not be used for the research. If you choose to withdraw after completion, however, due to the anonymous nature of the study, the data you provide will not be excluded from the final data analysis. Withdraw from the study will not result in any negative consequences for you. You are under no obligation to participate in future aspects/activities of this study, but may be invited to do so.

SUMMARY OF RESULTS:

A summary of the results of this research will be supplied to you, at no cost, upon written request to [durbinr@duq.edu](mailto:durbinr@duq.edu).

VOLUNTARY CONSENT:

I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.

I understand that should I have any further questions about my participation in this study, I may call Rebecca Durbin ( ); [durbinr@duq.edu](mailto:durbinr@duq.edu). I may also contact Dr. Jason Margolis, Dissertation Committee Chair ([margolisj@duq.edu](mailto:margolisj@duq.edu)).

Should I have questions regarding protection of human subject issues, I may call Dr. David Delmonico, Chair of the Duquesne University Institutional Review Board, at 412.396.1886.

I acknowledge that I have read the above consent form, am at least 18 years of age, signing below and participating in the survey reflects my consent to participate in this study.

Figure 6. Informed Consent with IRB Approval

## Teacher Survey on Teacher Professional Development

### Professional Development Survey-

#### Please note:

You may have been invited to participate in a survey at more than one session today's professional development day.

You are invited to fill out a separate survey for each session, at which you were given a paper invitation .

You must fill out the survey separately for each session for accurate data collection. Please enter the survey for each invitation that you wish to participate in and select the session you are reviewing from the multiple choice list. You will receive one entry into the gift card drawing for each survey invitation that leads to a completed survey that includes a drawing entry form.

Thank you for helping to inform professional development research and practices!

\* 2. What is your current position?

\* 3. About how long have you been in the field of education?

Years

Months

\* 4. Is school public or private?

☐ Public

☐ Private

\* 5. What is your gender?

☐ Female

☐ Male

\* 6. What is your age?

- ☐ 17 or younger
- ☐ 18-20
- ☐ 21-29
- ☐ 30-39
- ☐ 40-49
- ☐ 50-59
- ☐ 60 or older

\* 7. What is the highest level of school you have completed or the highest degree you have received?

- ☐ Less than high school degree
- ☐ High school degree or equivalent (e.g., GED)
- ☐ Some college but no degree
- ☐ Associate degree
- ☐ Bachelor degree
- ☐ Graduate degree

\* 8. Name of the professional development session are you reviewing in this survey:

\* 9. What delivery method did your training use?

- ☐ Lecture/Seminar (Material presented in a lecture/presentation format)
- ☐ Workshop (learn, make, and do session)
- ☐ Teacher to Teacher Sharing Session (sharing student work, discussion with peers)
- ☐ Model Lesson (instructor models the creation of a tool or use of a product step by step in a training session)
- ☐ Peer Modeling (facilitator, coach, or trainer models a lesson in a classroom with students)
- ☐ Partner/Peer Observation (peer teachers observe use of a tool or instructional method in each other's classrooms)
- ☐ Studio Classroom (Coach Facilitator models lesson with students while teachers from same grade level or content observe followed by a group discussion with coach facilitator and observers)
- ☐ Technology Enhanced Training (online classroom, app based lesson, video, web tool)
- ☐ Other (please specify)

\* 10. What aspects of this training did you find to be the **most** authentic?

11. What aspects of this training did you find to be the **least** authentic?

\* 12. In what ways (**if any**) do you feel you can apply the training into your professional work?

\* 13. How did the delivery method (i.e. workshop, technology enhanced learning, modeling, coaching, peer learning, observation, etc.) impact your learning in this training session?

\* 14. Was there an impact on you in terms of logistics (e.g. teacher work load/time spent, release time, technology barriers, etc)? Please explain.

\* 15. Describe the **most** useful aspect of this training.

16. (If any) Describe the **least** useful aspect of this training.

17. Describe ways (**if any**) in which this training session will change or impact your future practice in your professional work?

18. Would you be willing to discuss the training further in a brief interview with the researcher?

☐ yes (contact information provided will not be linked to this survey)

☐ Not willing to discuss further

19. Would you be willing to answer a survey later in the school year to learn more about how you have applied this training to professional work in your school?

☐ Yes, I would love to help further

☐ No, Thank You

\* 20. Would you like to enter the drawing for a 25\$ gift card to Amazon or iTunes?

☐ Yes, sign me up!

☐ No, thank you!

Figure 7. Teacher Survey Protocol for Post-TPD Sessions

End of Year Teacher Survey on Teacher Professional Development

Professional Development Survey- 1

**Please note:**

You may have been invited to participate in a survey at more than one session today's professional development day.

You are invited to fill out a separate survey for each session, at which you were given a paper invitation .

You must fill out the survey separately for each session for accurate data collection. Please enter the survey for each invitation that you wish to participate in and select the session you are reviewing from the multiple choice list. You will receive one entry into the gift card drawing for each survey invitation that leads to a completed survey that includes a drawing entry form.

Thank you for helping to inform professional development research and practices!

\* 2. What is your current position?

\* 3. About how long have you been in the field of education?

Years

Months

\* 4. Is school public or private?

☐ Public

☐ Private

\* 5. What is your gender?

☐ Female

☐ Male

\* 9. What delivery method did your training sessions use?

- ☐ Lecture/Seminar (Material presented in a lecture/presentation format)
- ☐ Workshop (learn, make, and do session)
- ☐ Teacher to Teacher Sharing Session (sharing student work, discussion with peers)
- ☐ Model Lesson (instructor models the creation of a tool or use of a product step by step in a training session)
- ☐ Peer Modeling (facilitator, coach, or trainer models a lesson in a classroom with students)
- ☐ Partner/Peer Observation (peer teachers observe use of a tool or instructional method in each other's classrooms)
- ☐ Studio Classroom (Coach Facilitator models lesson with students while teachers from same grade level or content observe followed by a group discussion with coach facilitator and observers)
- ☐ Technology Enhanced Training (online classroom, app based lesson, video, web tool)
- ☐ Other (please specify)

\* 10. What delivery method did you find the most beneficial to your learning?

- ☐ Lecture/Seminar (Material presented in a lecture/presentation format)
- ☐ Workshop (learn, make, and do session)
- ☐ Teacher to Teacher Sharing Session (sharing student work, discussion with peers)
- ☐ Model Lesson (instructor models the creation of a tool or use of a product step by step in a training session)
- ☐ Peer Modeling (facilitator, coach, or trainer models a lesson in a classroom with students)
- ☐ Partner/Peer Observation (peer teachers observe use of a tool or instructional method in each other's classrooms)
- ☐ Studio Classroom (Coach Facilitator models lesson with students while teachers from same grade level or content observe followed by a group discussion with coach facilitator and observers)
- ☐ Technology Enhanced Training (online classroom, app based lesson, video, web tool)
- ☐ Other (please specify)

\* 11. What training did you find to be the most authentic? Why?

12. What training did you find to be the least authentic? Why?



\* 13. In what ways **(if any)** did you apply the trainings into your professional work?

\* 14. How did the delivery methods (i.e. workshop, technology enhanced learning, modeling, coaching, peer learning, observation, etc.) impact your learning in this training session? Explain.

\* 15. Was there an impact on you in terms of logistics (e.g. teacher work load/time spent, release time, technology barriers, etc) from any of the trainings? Please explain and discuss if the impacts were positive or negative.

\* 16. Describe the **most** useful aspects of the training you received this year.

17. (If any) Describe the **least** useful aspects of the training you received this year.

18. Describe ways **(if any)** in which this training session has impacted practice in your professional work?

Figure 8. Teacher Survey Protocol for End of School Year



## Teacher Interview on Teacher Professional Development

### Professional Development Survey

\* 2. What is your current position?

\* 3. About how long have you been in the field of education?

Years

Months

\* 4. Is school public or private?

☐ Public

☐ Private

\* 5. What is your gender?

☐ Female

☐ Male

\* 12. Are there types of training that you feel impact change in your practice? Explain.

13. Are you given the opportunity to collaborate with peer teachers? If yes, describe. If not, explain the barriers to this.

\* 14. Are you provided with opportunities (if any) to participate in classroom based professional development activities? (peer coaching, peer observation, studio classroom, push-in lessons, etc.)? Please explain these.

\* 15. Are there barriers (if any) to participating in classroom based professional development activities? (peer coaching, peer observation, studio classroom, push-in lessons, etc.)? Please explain.

16. Do you feel technology enhanced professional development (online courses, online video trainings, online professional learning communities, etc.) has, or could have, an impact on the logistics of participating in professional development? Explain your response please.

17. Do you have the opportunity to participate in technology enhanced professional development (online courses, online video trainings, online professional learning communities, etc.)? If yes, explain how these opportunities have been provided. If no, why not?

\* 6. What is your age?

- ☐ 17 or younger
- ☐ 18-20
- ☐ 21-29
- ☐ 30-39
- ☐ 40-49
- ☐ 50-59
- ☐ 60 or older

\* 7. What is the highest level of school you have completed or the highest degree you have received?

- ☐ Less than high school degree
- ☐ High school degree or equivalent (e.g., GED)
- ☐ Some college but no degree
- ☐ Associate degree
- ☐ Bachelor degree
- ☐ Graduate degree

\* 8. Tell me about the types of professional development you have attended in your career?

\* 9. Describe the types of professional development that have been provided to you in your current school in your time working there?

\* 10. Describe in your words what makes professional development authentic?

11. Are there types of professional development that you feel are not authentic? If yes, what types?

18. Do you feel technology enhanced professional development (online courses, online video trainings, online professional learning communities, etc.) has, or could have, on an impact on your teacher work load? Please explain your answer.

19. Discuss the challenges/barriers involved in participating in professional development in your school?

20. Discuss the supports in place for participating in professional development in your school?

21. Do you feel the current teacher professional development being provided in your school is effective or ineffective? How is it effective or how could it be improved?

22. Is there anything else you wish to share about teacher professional development from your experiences?

Figure 9. Teacher Interview Protocol

**Focus Group Protocol:**

**Welcome:**

Hello welcome to our session. Thanks for taking the time to join us to talk about teacher professional development. It is my hope that the discussion today can inform and guide future research and practice in teacher professional development.

**1. Introduce moderator**

My name is Rebecca Durbin. I am a doctoral candidate in Instructional Technology and Leadership at Duquesne University. I was a teacher in the field of education for over 10 years prior to my doctoral program, teaching in grades pre-k, kindergarten, and first grade. I am a parent of two children ages 5 and 8 who are involved in public education in the area.

**2. Topic**

Our topic is teacher professional development. We will discuss and explore various types of teacher professional development, including their logistics, benefits, and barriers.

**3. Results**

The results will be used for a research study that will lead to a dissertation document and possibly professional journal publications that aim to improve teacher professional development and inform its body of research.

**4. Selection**

You were selected because your district agreed to allow me to invite your participation in a study on teacher professional development. You are an educator actively teaching and engaged in professional development activities this school year. You also signed up on a first come first serve sign up sheet.

**5. Guidelines**

There are no right or wrong answers, only differing points of view. I am not recording the session, and ask that only one person speaking at a time for not only respectful communication, but also for recording purposes. We're on a first name basis. We will be on a first name basis tonight, and we won't use any names in our reports. You don't need to agree with others, but you should listen respectfully as others share their views.

**Rules for cellular phones and Texts:** I ask that your silence your phones. If you must respond to a call or text, please do so

outside of the room and as quietly as possible and rejoin us as quickly as you can.

**My role as moderator will be to guide the discussion**

Talk to each other, not me. I will facilitate the discussion but want you all to talk to each other.

**Discussion Guide:**

Ok. let's begin. I placed name cards for you to fill out on the table in front of you to help us remember each other's names. Let's find out some more about each other by going around the table. Tell us your name, how long you have been teaching, and what grade level you currently teach. You may share where you teach if you like as well.

**Questions:**

1. Thinking back through your years as an educator, what was your favorite teacher professional development session? Explain your choice.
2. Again, thinking back through your years as an educator, what was your least favorite teacher professional development session and explain your choice.
3. What kind (delivery method: lecture/seminar, make and take, peer sharing, online, in classroom, etc.) of professional development session do you typically enjoy? What is it about this type that you enjoy?
4. What kind (delivery method: lecture/seminar, make and take, peer sharing, online, in classroom, etc.) of professional development session do you like the least? What is it about this type that you do not enjoy?
5. If you were an administrator in charge of teacher professional development and could make one change to TPD, what would you change and why?
6. Talk about your experience if you have had any training in the presence of students (i.e. in class push in or modeling, coaching, etc.). What was it like for you? What were the positives and negatives of the experience?
7. What are some areas of teacher professional development that your school is doing well?
8. What are some areas that could use improvements (if any) and how could they be improved?
9. How do you feel about teacher professional development being delivered via technology or in an online course?

10. Have you experienced any forms of TPD in which teachers collaborate? If yes, explain the training and your feelings about this form of TPD.
11. What supports do you receive in terms of gaining access to professional development?
12. What barriers exist in terms of access to professional development?
13. Do you have any input in what types of professional development you receive? Tell me about this.
14. Is there anything we didn't discuss about professional development that you wish to discuss?

**Possible Probes:**

- "Would you explain further?"
- "Would you give an example?"
- "I don't understand."
- "Why?"
- "Tell me more about that."

Figure 10. Focus Group Protocol





**INVITATION TO PARTICIPATE IN A RESEARCH STUDY**  
**Take a quick survey and Enter to win a 25\$ Gift Card!!!!**

**TITLE:**

**TEACHER PROFESSIONAL DEVELOPMENT (TPD): THE IMPACT OF  
DELIVERY STRUCTURE, STUDENT PHYSICAL PRESENCE, AND TECHNOLOGY  
ENHANCED INSTRUCTION**

**INVESTIGATOR**

Rebecca Durbin  
Doctoral Candidate  
Duquesne University

**ADVISOR**

Dr. Jason Margolis  
Professor and Department Chair  
School of Education, Department of Instruction and Leadership

**STUDY PURPOSE AND ACTIVITY:**

You are being asked to participate in a research project that seeks to investigate the potential impacts and perceptions of different delivery methods of teacher professional development and the supports and barriers to varying types of teacher professional development.

This portion of the study asks that you answer a series of online survey questions about teacher professional development. The questions ask your thoughts and perceptions about teacher professional development as well as barriers and supports.

***This study has been approved by Duquesne University Institutional Review Board.***

**RISKS AND BENEFITS**

This project is not expected to involve any risks or harm beyond those of everyday life. No identifying information will be attached to any data collected in survey form. Names and personal information from future activities will be kept confidential with pseudonyms. While there may be no direct benefit to you, your participation may contribute to the research that exists on teacher professional development and inform future professional development training sessions.

**COMPENSATION**

There will be no monetary compensation to you, and participation will not cost you anything either. If you wish, however, you can enter a raffle to win gift certificates for your completion of this survey. From this survey, 2 winners will be drawn at random to receive a 25\$ gift card to Amazon.com or iTunes.com, which will be the winner's choice. They will be notified by e-mail at the conclusion of the survey collection period, which will be no later than June 1<sup>st</sup>, 2017. Gift Cards will be delivered no later than June 8<sup>th</sup>, 2017.

**To Participate, please complete the short survey (10-15 minutes) on the weblink below. The consent form will be provided at the start of the survey and explain in detail privacy procedures and safeguards. Thank you for participating!**

**WEBLINK TO SURVEY:**

<https://www.surveymonkey.com/>

Figure 11. Sample Recruitment Flyer

## **Appendix B: Level 1 Session Field Notes Description**

### **(10 Post-Session Surveys Collected)**

There was one session of professional development that occurred at Level 1 of the SPLT model. This session occurred in District 2 on January 23rd, 2017, beginning at 12:36pm and ending at 3:03pm. The session was mandatory for general education teachers in Grades K–3 from District 2. There were 121 attendees at the session, seated at rectangular tables with four to six people per table. The tables were arranged facing a screen and a projector system, from which the presenter spoke and shared information on the topic. The presenter was from out of state and was a representative of the publishing company which the curriculum being discussed was purchased from. She spoke of having many years of previous teaching experience and prior classroom experience using the curriculum. The presentation style utilized a PowerPoint presentation containing a variety of text, cartoon images, and images of curriculum items. A handout was given by the presenter that described the session as, “What do I have and how do I use it?” The session included several instances of student presence artifacts. These instances included a student folder that was used in the classroom, anecdotal descriptions of using the program with students, images of how curriculum items were being used in a real classroom, and a video of a first grade classroom completing activities using the curriculum in a word building lesson. While these artifacts cross boundaries into Levels 3 and 4 of the model, the majority of the session kept the level more appropriately placed at Level 1 due to the presenter chosen, the outside for-profit company, and the manner in which a majority of the content was presented. The presenter attempted to show the tools and lessons provided by the company, explaining how they could be used at various grade levels, and gave a general overview of the session. It is noted in the observational field notes that teachers directed questions to the presenter throughout the

presentation. During conversations at various tables, teachers also expressed concern to their peers regarding how the new program would fit into the already scheduled and implemented program. At these same side conversations, several teachers shared with peers how they can fit pieces of this into their existing days and programs (Field Notes, 1-23-17, pp. 20–25).

## **Appendix C: TPD Level 2 Session Field Notes Description**

### **(5 Post-Session Surveys Collected)**

There were two sessions of professional development that occurred at Level 2. One session occurred in District 1 and the other in District 2. The following section describes each session in more detail.

Session 1 at Level 2 occurred in District 1. The session was held on November 8th, 2016, beginning at approximately 8:30am and ending at approximately 10:58am. The session was held on a mandatory school district institute professional development day; however, the teachers were able to select certain sessions that they wanted to attend from a list of district provided choices. Some sessions were mandatory during the day, but some were left to choice. This session was a session in which teachers chose to attend. The grade levels of the educators in attendance was initially hard to determine, but a teacher seated at the same table as the researcher table reported that although the teachers had choices, the K–2 teachers had a mandatory science training occurring during this session (Field Notes, 11-08-17, p.1). With this, the researcher was able to determine that grades represented could be anywhere in the third to eight grade range. There were 68 teachers in attendance, seated at rectangular and round tables facing a projector and screen that were above the stage. The tables seated anywhere from one to six people. The two presenters at the session were from within the school district and were employed in the roles of an instructional coach and a gifted teacher. The topic of the session was differentiation in the classroom. Handouts were provided to the teachers at their tables to support the presentation. The session content was aimed at discussing differentiation in instruction for students. The presenters used a variety of power point presentation slides, silent reading materials (followed by peer discussion), group sharing and brainstorming, peer discussions at the tables, and personal

reflection on the items presented. Time was given to group by grade-level peers to work with the information they were given in peer collaboration. One artifact of student presence was used in the presentation, which was a video that presented students speaking about their feelings before and after receiving differentiated instruction. The videos shared student voice and feeling but did not show actual classroom instruction. The field notes mentioned some observation of side discussions and laptops being used (Field Notes, 11-08-16, pp. 3–4).

Although the groups were arranged by grade level for peer collaboration at one point during the session, the segment was too brief to be considered a PLC in action. The rest of the activity was mostly in a presentation-style format, and it was presented on a district wide professional development day, which kept this activity firmly placed at a Level 2. The presenters were district teachers, but the scheduling, style, and content of the presentation kept it at Level 2 of the SPLT model.

Session 2 at Level 2 occurred in District 2. The session was held on November 30th, 2016, from approximately 8:15am and ending at approximately at 11:15am. The session was held in a conference room in the main administration building of the school district on a regular school day, meaning that the district was required to place substitutes into the classroom. It was a mandatory session for new teachers in the school district and was part of a series of sessions on the topic of personalized learning and individualized instruction. It focused mostly on the theme of documentation and reflection for student learning. The session was presented by the school district instructional coaches. The coach role in District 2 involves providing modeling and supports to improve instructional practices by working with the teachers both inside and outside of the classroom. There were six female learning coaches and one male personalized learning coordinator involved in the presentation. There were 18 female new teacher participants. The

room was set up with a screen and projector and three rectangular tables, where five to seven people were seated facing the screen. Videos of students were used that discussed aspects of digital natives. They also used videos of actual students from the school district explaining how they felt about personalized learning experiences. The videos did not show classroom instruction—just student voice. The session later included another video from outside of the district that showed real students and teachers exploring water and that modeled documenting and reflecting. The session included part of a model lesson activity in which the teachers acted as students to practice documentation and reflection during an airplane model test. The teachers were placed in teams and had to build a plane to see which teams would go farthest. They were to document, reflect, and redesign their plane in the process. The teachers split into grade-level groups and worked with peers by exploring ways to include documenting and reflecting into the current curriculum and lessons. They concluded with a museum exhibit session. In the museum segment, the instructional coaches presented five museum exhibits that they utilized for sharing classroom applications of the topic presented and to show how it was applied in an actual classroom. Some of the exhibits had actual student work samples for teachers to see. They ended with a video of teachers from the district sharing ways in which they use personalized learning in their classes (Field Notes, 11-30-16, pp. 11–15).

Although this lesson bleeds into Level 4 of the SPLT model—even with the inclusion of a portion of a model lesson—the majority of it remained in presentation style with breaks for discussion. There was peer collaboration during the sessions but not quite to the level of a PLC. It had some elements of higher levels by sharing some student presence artifacts, such as work or videos of student voice. However, these examples were used to describe the students in a more hypothetical way than showing exactly what happened in the lesson in the classroom.

## **Appendix D: TPD Level 3 Session Field Notes Description**

### **(10 Post-Session Surveys Collected)**

There were two sessions of professional development at Level 3. One session occurred in an online format and will be described in the section for technology enhanced and delivered TPD.

The other session occurred in District 2 on January 23rd, 2017. It occurred from approximately 8:15am through 10:45am. The session was part of a district-wide professional development day and was a required session for Grades 6–8 social studies teachers. The session included 12 teachers and was presented by a school district insider whose role is the school district administrator in charge of student learning. The session was presented as a curriculum mapping time. The three grade levels were charged with looking at the curriculum topics that would be taught in the next school year; they were also told to start mapping out which topics would be covered in each grade level. There was much discussion and some passionate debate on how to move forward in the planning for the upcoming school year. The district administrator moderated the discussion and suggested to have them align as much as they could with a focus on skills, not content. After this, the group transitioned to grade-level team work using a spreadsheet for the start of curriculum mapping. The facilitator/presenter circulated working with each group on the Google Doc they were editing. After a period of working collaboratively in grade-level groups, the facilitator brought the group back together to discuss the changes and progress. The students, lessons, and topics were always discussed in the hypothetical, and no student presence artifacts were shared (Field Notes, 1-23-17, pp. 16–19).

The set-up and content of this session placed it at a Level 3 in the SPLT model. There was very little crossover into other levels due to the nature of the curriculum mapping as well as the PLC-style discussion of upcoming changes to the social studies curriculum.



## **Appendix E: TPD Level 4 Session Field Notes Description**

### **(7 Post-Session Surveys Collected)**

There were two sessions of professional development that occurred at Level 4. Both of the sessions occurred in District 1. The following section describes each session in more detail.

Session one at Level 4 of the SPLT model occurred in District 1 on November 8th, 2016 from approximately 12:30pm to 2:40pm. The session was held at the middle school in a location called a common room, which is an open space in between hallways. The teachers in attendance were from grades kindergarten through second grade from various elementary schools throughout the district. There were 40 teachers spaced at round tables ranging in size from three to six people. The tables faced a screen with projection, a chart called “norms” and a sheet labeled “parking lot.” Each table had approximately five chairs, sticky notes, markers, and candy placed on it. The session was presented by a district K–3 reading instructional coach and was self-selected by the teachers from a list of options for the professional development day. Handouts were provided to each participant. The session topic was on utilizing assessment data to inform reading instruction. Basic introductions and background information was given at the start of the session. The training utilized Fountas and Pinnel benchmark kit materials and was focused on how to take and code running records for reading assessment. The presenter modeled coding a running record using a document camera. The session had a model lesson that involved a teacher-participant from the session reading from a script who acted as a child while the rest of the teachers attempted to take a running record of their reading. Following this, the teachers discussed and asked questions about how to code the document. The next activity utilized a student presence artifact in the form of a video that included a child reading and a teacher taking a running record with an actual student. The video also modeled a comprehension conversation

following the reading of the book with an actual teacher and student. During the video, the teachers were asked to code the running record of the child reading along with the video. They were provided a copy of the text to follow along. After the video, they discussed what people coded and why it was coded in certain ways. Following this segment, the content moved into the topics of setting up strategy groups and guided reading groups. There was then a discussion on conferring with students after guided reading. This segment of the session used a video to showed a model guided reading conference, which featured a real student and real teachers (not from in district). Following this, the presenter shared documents that have been used with students that were blank masters. The presenter also shared a completed form that was used with an actual student. They then had time to review and discuss the different forms before the session was concluded (Field Notes, 11-08-16, pp. 6–10).

This lesson holds true for a Level 4 placement in the SPLT model continuum, as it was presented by a district insider modeling how to complete the activities with students on a professional development day. One could say that the use of video of an actual classroom could bring in aspects of the higher levels of the SPLT model (Level 5 or 6); however, the lesson was still located outside of an actual classroom on a non-instructional day. The modeling and discussion places it quite easily into Level 4 of SPLT model.

The second TPD session that occurred at Level 4 of the SPLT model occurred in District 1 on April 3rd, 2017. The session was selected by the attending teachers from a list of offerings on a mandatory professional development day in the school district. The same session was repeated twice during a full-day teacher professional development day in the school district. The first session observed occurred from approximately 8:30am to 11:00am (AM Session) and the second session observed occurred from approximately 11:30am to 3:30pm (PM Session). The

AM session had 21 participants and the PM Session had 33 participants. It was presented by teachers from within the school district, including the three technology teachers, a librarian, a first grade teacher, and the director of technology. The tables were rectangles arranged facing a projector screen and a chart. The tables seated from two to five people in each session. The session covered the idea of student dispositions and how to consider them when teaching. It also shared how considering dispositions fit with the district goals and vision in the district guiding documents. They began with an overview of what dispositions are. They spent time working in break-out groups at the tables to get more in depth information about the seven dispositions. Following this, the groups looked at district guiding documents and how they account for dispositions. They utilized some brain break activity games and then came back to the full group. Following this, there were three break-out group choices: inquiry and questioning, maker/building, and documenting/reflecting. Each break-out had different components. The documenting and reflecting session discussed the use of Seesaw (an app for iPad) to have students document and reflect on learning. At this point they modeled an activity for this topic that involved a design challenge where teachers had to build the tallest newspaper tower. The maker's break-out session had a variety of activity components, including a video of students (not from this district) on the maker movement, a variety of classroom materials and challenges used with students, and multiple stations to explore. The last break-out group focused on inquiry and questioning. They utilized a video with student presence and provided "hypothetical" ways in which this topic applied to the classroom. They shared ways in which wondering and questioning have been used in their classrooms. There was peer collaboration in each break-out session as well as in the main segment of this presentation (Field Notes, 04-03-17, pp. 26–30).

The level of modeling and demonstrating tools that teachers can use in the classroom—as well as the mock lessons in which teachers acted as students—placed this at a Level 4 on the SPLT model. There was evidence of Level 2 SPLT aspects, such as the session being held on a district professional development day during which students were not in attendance, as well as the fact the presenters were district insiders. However, the activities placed it more appropriately in Level 4 of the model.

## **Appendix F: TPD Level 5 Session Field Notes Description**

### **(8 Post-Session Surveys Collected from 10 Possible Sessions)**

The sessions for this level of TPD were all held in District 2 in two different elementary school buildings. The researcher was teamed up with two different learning coaches by the district administration and was invited to spend the day with them on three different dates between April and May. The teachers who participated requested the support of their learning coaches, and all of the sessions were planned and prepared for by the learning coaches and the classroom teachers. They were self-selected based on the interest the classroom teachers had, in terms of content and modeling from their coaches. Throughout the three days in the schools, the researcher visited and participant-observed 10 different push-in, team taught, or coach modeled lessons that occurred in the classroom with students. The sessions that teachers scheduled with the coaches typically involved a pre-planning session, in which the teacher and the coach discussed the lesson that would occur, who would be responsible for each aspect, and how it would look in the classroom. The times and dates of the lessons were pre-arranged between the coaches and the classroom teachers. Some lessons had follow-up discussions or communications to discuss aspects of the lesson after it was implemented. However, these were not able to be observed by the researcher, as some were planned for other days or happened very organically and informally. Below is a more detailed list of the 10 sessions observed during the researcher's coach shadowing sessions (Field Notes, 2017):

1. April 5th, 2017: This was in a kindergarten teacher classroom (AM lesson and PM Lesson for half day K). In this lesson the instructional coach modeled aspects of a sun/shade lesson. The K classroom teacher team taught with the instructional coach at various times throughout the lesson. In the PM lesson there were 13

students present with one classroom teacher and one instructional coach (Field Notes, 04-05-17, pp. 31–32).

2. April 5th, 2017: This was a fifth grade classroom lesson in which the class utilized the Sphero Spark droid for coding practice. The class was split into two groups. The Grade 5 classroom teacher worked with one group in a large area, while the instructional coach worked with a smaller group showing them aspects of the coding capabilities of the Spark. In total there were approximately 20 students, but with the movement of the groups it was hard to get an exact total through mere observation (Field Notes, 04-05-17, p. 33)
3. April 12th, 2017: This session was a team-taught lesson with a 2nd grade classroom. The classroom teacher and the instructional coach worked as a team to expand upon previous activities involving personalized learning and book clubs that the class had formed. The lesson modeled the difference between *need to know* questions and *nice to know* questions about the topic each student group was exploring. The teachers worked as a team to do a quick discussion and modeling of the activity followed by the students splitting into their groups to work on lists of questions while the two teachers circulated the room. There were 22 students present for this session (Field Notes, 04-12-17, p. 34).
4. April 12th, 2017: This session was team-taught with one Grade 4 classroom teacher and one instructional coach. There were 20 students present for the classroom lesson. The topic of the lesson was on the components of “quality” poetry writing. The instructional coach prepped the materials for the lesson. The classroom teacher requested this TPD session with her instructional coach, and

the topic was self-selected. The instructional coach led the lesson and was supported by the classroom teacher. During the lesson, the students were asked to write sticky notes as feedback on poems they were reading. The sticky notes were color coded: one green and one blue. On the green notes, the students wrote an “I noticed I liked . . .” statement. On the blue notes, the students were to write an “I noticed I didn’t like . . .” statement. The tables were to share their thoughts from the sticky notes. As this occurred, the teachers circulated while encouraging discussion and modeling feedback. When they came back together as a group, the instructional coach modeled ways to use the feedback to write goals for their own poetry writing. They then spent time writing goals for their poetry writing and sharing their goals with the class (Field Notes, 4-12-17, p. 36).

5. April 12th, 2017: In this session, the instructional coach team taught with a first grade teacher. The TPD push-in session was based on a part of the district-wide initiative on personalized learning and was requested by the classroom teacher. It occurred on an instructional day, during instructional time in the classroom with students. The lesson topic was “wondering” and how to use wondering to guide learning. The instructional coach helped plan the session with the teacher. The lesson shared a video on wondering. Following the video, the teachers explained how to use a wonder to guide the students to topics they wanted to learn more about by discussing their wonders with a partner. The teachers circulated during the lesson. The teacher and instructional coach side-discussed aspects of the lesson and the classroom dynamics as students worked. When the lesson concluded, they explained that this was one way to document questions that the

students had to guide their learning. There were 18 students present during the TPD session that occurred in their classroom (Field Notes, 4-12-17, p. 37).

6. April 12th, 2017: A Grade 2 teacher requested a push-in session following a lunch and learn, as well as planning sessions with the instructional coach. The request turned into a coaching and team-taught cycle that focused on literature circles. The session was a modeling session based on finding unfamiliar words during a read-a-loud and listing them as they went. The classroom teacher made the list as the students raised their hands throughout the read-a-loud to share the words they wanted to understand further. Following the list making, they broke into groups to work on dictionary jobs to further explore the list of words made during the lesson. The teachers concluded the lesson together (Field Notes, 4-12-17, p. 38).
7. May 19th, 2017: This Level 5 SPLT model session was a push-in lesson with the instructional coach in a multi-age grades 4th and 5th classroom. The lesson was team-planned prior to the instruction in the classroom. The instructional coach led the class in the lesson about rates, using examples from real cellular phone plan and purchase deals. The instructional coach gave the class the goals for the lesson and allowed the students to come up with some questions based on the goals. The classroom teacher observed the lesson for the most part but did circulate once the groups started working on the problems for calculating rates. The students were grouped and had to calculate the actual cost of the plans and phones. They were encouraged to do this on chart paper to make their thinking visible. After they did the calculations, they gave their chart paper to a peer group for feedback. Following the feedback, the groups each decided what they felt was the best



“deal” in terms of a cell phone plan. They then had to journal this choice with the logic for this choice on Seesaw in their journals. The classroom teacher in this case did more observing of the instruction than leading the instruction. There were 20 students and two teachers in the room for the lesson (Field Notes, 5-19-2017, p. 42).

8. May 19th, 2017: In this session, the instructional coach led an engineering challenge with all of the fifth grade boys from three classrooms. The teachers requested the lesson be modeled by the instructional coach. Three teachers and the instructional coach were present for the lesson which instructed a total of 27 fifth grade male students. The instructional coach modeled a bridge-making challenge, in which the boys worked in teams to create a bridge that was strong enough to hold 5 social studies text books. The three teachers and the instructional coach circulated, supporting students and questioning their designs and thinking. The teachers and the instructional coach had small side discussions of teaching strategies for engineering lessons and discussed and asked questions as the lesson unfolded. The teachers asked how to further challenge the students with the engineering kits to extend the lesson beyond the scheduled time frame, and they implemented these extensions after the instructional coach left the room (Field Notes, 5-19-17, p. 43).
9. May 19th, 2017: This push-in lesson occurred in a third grade classroom that had 20 students and one classroom teacher. The instructional coach was asked to push-in and model this lesson on severe weather. The lesson was team-planned but was presented to students by the instructional coach while the classroom

teacher observed and supported the instruction. The lesson began with a team-taught brainstorming lesson about types of severe weather. Once the students were into the lesson and partner work began, the teacher asked questions from the instructional coach. They discussed how the lesson was unfolding, how it was working, and what the next steps of the lesson would be. They also discussed ways in which they could support the students as the lesson continued (Field Notes, 5-19-2017, p. 44).

10. May 19th, 2017: In a small group lesson with the reading resource teacher, the instructional coach was asked to come and support the lesson based on both peer feedback and the review of student-made games. A student had a group of peers played the game that he had created and his peers gave feedback on how he could change or improve the game. The coach and the resource teacher modeled questions that would lead to actionable feedback for the student to be able to improve the game. Much of the feedback involved the rules of the game. There were four students in the small group that took place in the resource room, which was smaller than a standard classroom. The teacher and the instructional coach worked on guiding peer feedback as a team (Field Notes, 5-19-18, p. 45).

## **Appendix G: TPD Level 6 Session Field Notes Description**

### **(10 Post-Session Surveys Collected)**

There were two sessions of teacher professional development at SPLT Level 6. They both occurred in District 2 and incorporated teachers visiting the classrooms of other teachers in their own school or in their own district.

The first Level 6 session occurred on April 19th, 2017 from 9:30am-12:30pm. The session was a “Walk the Halls” event in which teachers could voluntarily sign up for 25 minute time slots to walk the building and observe the classrooms on a normal school day during normal instructional hours. The invitation to participate in this activity was initiated and designed by the school district themselves, more specifically designed by one of the instructional coaches. The instructional coach shared the idea with staff at a staff meeting to see if there was interest and to explain what it would be like. The instructional coach also cleared the activity with the teachers’ union to ensure teachers were comfortable participating in an “open door” non-evaluative walk observation. There were 24 teachers who participated in the event, and substitute teachers were provided during their observation for 30 minutes, which allowed five minutes of transition time. The classrooms which were willing to welcome observers placed a die cut shape on their doors to indicate that their classrooms were “open” for visitors. Teacher-participants travelled the halls and observed with their own focus in mind. They sometimes travelled alone or even in pairs as they were observing regular school day instruction at all grade levels throughout the school. The teachers in this session were observing, discussing ideas they saw, and taking images of classroom displays, rules, and designs. They were visiting the classrooms of their own choosing, and observing and noting things of interest to them. The choice to participate and what to observe was completely based on teacher choice and was not required by the school or district. Following the

five rounds of walk-the-hall style observations, teachers were asked to attend a lunchtime discussion in the leaning resource center. Lunch was provided and the discussion of the experience was led by the instructional coach. During the debriefing, teachers shared what they observed and why that they felt they could take away from the experience. They shared compliments and what they would be using in their rooms based on what they saw in their learning walks. They also gave feedback on the process of the TPD session and ways it could be used again to make it more meaningful for teachers. These included longer time period to observe, making times match up with fine arts schedule, a schedule of fine arts so they knew when rooms would be empty prior to signing up for a time slot, and possibly scheduling it so peers could better observe their grade-level peers. In all, the teachers shared that they would like to have experiences like this again as a form of TPD (Field Notes, 4-19-17, p. 20).

The second session that occurred at Level 6 of the SPLT model was an observation of tiered reading and mathematics instructional time. It occurred on 4-26-17 from approximately 9:00am to 12:00pm. Five teachers from one of the schools in District 2 travelled for a half-day discussion and observation at another school in District 2. This was arranged and requested by a principal in order to support the staff in seeing ways in which other schools were designing, leveling, and supporting tier time for students. The substitute teachers were paid for by the research funding, and gift card incentives were provided to teachers who completed the online survey following the session. The teachers who observed tier time were from first- and second grade-level classrooms. They observed rooms from Grade 2 during tier time. Prior to the classroom observations, two teachers from the school being observed explained how they set up tier time, logistics of their tier time, how they place and progress monitor students, and how to deal with scheduling due to other services students may be receiving. They also explained how the administrator supported them in

terms of gaining block scheduling for language arts and how the time is protected from outside services. Teacher-observers had time to ask questions and discuss the tier time process with the two classroom teachers they were observing prior to observing for approximately 40 minutes (Field Notes, 4-26-17, p. 26).

Following the discussion in the teacher's lounge, teachers were grouped to view tier time in two different Grade 2 classrooms. The teachers observed a small group intervention session during which approximately six students were receiving math instruction. The rest of the class, 17 students, were working independently during the small group lesson, which occurred at a separate table with the classroom teacher. The observing teachers watched the lesson unfold. When able, the classroom teacher shared tips, answered questions, and explained what she was doing with the students in the small group. Part way through, the two observation groups switched classrooms and observed another teacher in a similar tier lesson. The teachers shared how they planned, how they collected and stored assessment data, and they shared strategies for implementation as much as they could in the classroom during the observation (Field Notes, 4-26-17, p. 26).

Once done observing, the five observers returned to the teacher's lounge and discussed how they could see this in their own building and what changes and infrastructure would be needed in order for this to work. They spent about 20 minutes discussing this (Field Notes, 4-26-17, p. 26).

Following completion of their classroom lessons, the teachers who were observed joined the observers in the teachers' lounge for a discussion that included a question and answer session, the sharing of their RTI schedules, and suggestions of how the observers could adjust their schedules in order to make this model work at their own school (Field Notes, 4-26-17, p. 26)

## **Appendix H: TPD Level 7 Session Field Notes Description**

### **(5 Participants, 4 Post-Session Surveys Collected, 7 Participants in Debrief)**

There was one SPLT Level 7 session completed in this study. In the two districts that participated in the study, there was no ongoing studio classroom in existence. After discussing the format of a studio classroom model, the administrators and the instructional coaches in District 2 made the decision to try the model it out with a team of teachers. The simulation was created to come as close to an ongoing studio model by using the technology facilitator and the instructional coach as the experts planning and modeling the lesson in the classroom. Although not ongoing, the studio model was simulated through a team observation of the technology facilitator and a classroom teacher from the same grade level as the observers. The team involved in the studio classroom self-selected the topic or the tool for the observation based on the needs the team was experiencing in the area of technology. The technology facilitator helped design and teach the lesson that was used with students. She taught the lesson in the classroom as well, in order for the grade level teachers to be observers in the room (Field Notes, 5-22-17, pp. 46–47).

The session occurred on May 22nd, 2017 from approximately 1pm to 2:30pm. Prior to entering the classroom to observe, the classroom teachers met with the instructional coach and the technology facilitator in an empty classroom for a pre-observation discussion. During the discussion, the technology facilitator described the tool that would be used with students, the lesson content, how it ties with district initiatives, and what the tool is capable of. The teachers, all second grade level, had the opportunity to ask the technology facilitator questions prior to the observation room (Field Notes, 5-22-17, pp. 46–47).

When it was time for the lesson, the team of teachers, the tech facilitator, the instructional coach, and the researcher all entered the second grade classroom that would be participating in the studio classroom lesson. Upon entering, there were 22 second grade students preparing for the lesson by cleaning up the previous activity. The students sat on the rug, and the lesson began with the classroom teacher giving a reminder about behavioral expectations. She also made the children aware of who the people were in the room and that they were there to learn about how their class uses Seesaw and Pic Collage. The lesson continued with the technology facilitator taking the lead, showing how to use the iPad to search for a picture in Pic Collage for the science content they were learning (i.e., solids, liquids, and gasses). Once the model of Pic Collage was completed, students were reminded and shown how to access their Seesaw using a class QR code. The technology facilitator modeled the features of how to pause and record audio for the Seesaw app. After the modeling, the classroom teacher stepped in and reviewed the iPad rules, procedures, and activity directions. The iPads were then passed out to the students who then went to their work tables to get started (Field Notes, 5-22-17, pp. 46–47).

While the students worked, all seven adults in the room circulated, observing and supporting students. Students began making their Pic Collages on states of matter as the teachers watched, interacted, and asked questions of the students. Teachers who were observing had small side conversations about how the apps could be used their classrooms for other activities and standards. Teachers who were observing side-spoke with the technology facilitator when they had questions or ideas they wanted to share while students worked. They also took opportunities to speak with the instructional coach as the lesson happened, asking questions and sharing ideas. The technology facilitator then showed how the students could use the audio recording booths for the iPads, which were small boxes with soundproof foam that allowed them to record onto

their iPads in a noisy environment. The observing teachers asked questions as to how to check these items out from the technology facilitator and also asked what the recording booths were made of. As the lesson concluded, the technology facilitator and classroom teacher showed how the students could app smash and share out their learning through Seesaw. The classroom teacher modeled how to use the “approve” or “decline” functions of student posts to Seesaw. As the lesson concluded with the students sharing their work via Seesaw, the teacher-observers and the instructional coach exited the room and returned to the empty classroom for a debriefing session. The technology facilitator closed out the lesson and also joined the debriefing session (Field Notes, 5-22-17, pp. 46–47).

During the debriefing session, the five teacher-observers were led through a discussion of what they saw and their thoughts on it by the instructional coach and the technology facilitator. In the figures below (see Figures 13, 14, and 15), the transcript of the post discussion is de-identified and shared (Field Notes, 5-22-17, pp. 46–47).



Time: 2:28pm-May 22<sup>nd</sup>, 2017 5 2<sup>nd</sup> grade teachers, 1 Tech Facilitator, 1 Instructional Coach

1. Share some things you learned from this session.

STUDB-T2- Sound booths to use. This was cool. Can they be made?

STUDB-T2- There was a quick start with the pre-lesson that had been done before. It was not something that was a hard activity. It was putting knowledge down and then some kids were writing down their thoughts before recording. Some of the kids were growing from each other and talking about their pictures.

STUDB-IC-I liked the idea of doing this at the end of the unit.

STUDB-T1-It was nice to see how integrated it was for them to use and I could see how it worked and it seemed less scary and seeing the kids dive in.

STUDB-IC-If you can find ways to replace other activities can be replaced then just adding something more or new.

STUDB-T1-Just having your phone to approve the videos right then and there.

STUDB-T2-I could be easily walking around instead of having them pile up.

STUDB-T3-If it is a low stakes high stakes thing you can decide how to approve.

STUDB-T4- Setting up the guidelines on what to share how to share makes approving easier.

STUDB-TF-You can not edit it until they submit and give it back. They can copy and edit to put it back on seesaw after the edit.

STUDB-TF-We did this in a classroom with a Jpeg. They can mark it up and edit. We did a screen shot and also from everyday math. You can also download a PDF and export as a jpeg. Prior to that if you only want a portion of the PDF you can crop it and save it as a JPEG.

STUDB-T5-Everything you do can be shared.

STUDB-T4-Showing idea of how you can use math in focus in the seesaw app to replace a paper activity and extend it.

STUDB-TF-These can be shared on the WOTEC website.

2. What questions do you have about the lesson.

STUDB-T1-You reserved the iPad cart. When you use it in your classroom do you typically reserve the cart or use the iPads you have.

STUDB-T4-No... I borrow and use the iPads I have.

STUDB-T2-You can also do it as a station.

STUDB-TF-Describes a video as a screen cast. They would watch the video as the intro being as a video in their seesaw and then they can go to work at a station with a flipped version. The lessons can be viewed as homework-flip the classroom and do the work at school.

STUDB-IC-It can be used as a differentiation tool as well.

STUDB-TF-If you want it as a center and have multiple math stations it would be beneficial to have for use as a station. You want to save your videos to your google drive and pop them in there.

STUDB-T1-Explains ideas on how to make a video for kids who need extended in math and then they can watch it and do a differentiated lesson. You can give these higher kids some face to face time when you are giving time to your lower students as well.

STUDB-TF-You can use make it in seesaw and download to your Google drive to use year to year,

STUDB-T3-We are getting closer to not actually showing up to school

STUDB-T5-Parents can be connected to the seesaw app. I will use that from the year start next year. I can send notes this way and the parents then get an e-mail alert and manage everything in one spot.

STUDB-T2- Then I can use it for everything in one spot.

STUDB-TF-You can use a blog feature as well and that is where you can share with everyone. You can share with everyone or you can password protect it. You can also connect between classrooms with seesaw blog.

Figure 12. Studio Classroom Debrief Discussion Transcript (p. 1)

STUDB-T5-There is a paid level and you can get access to many more features.

STUDB-TF- The paid version is used with a teacher here and she can add and track common core standards, etc.

STUDB-T2-If you pay for it you can keep that class from year to year. In the school subscription they cannot be transferred from class to class.

STYDB-TF-If parents pay they can download and keep them from year to year.

STUDB-T5-Parents save items from this site.

STUDB-IC-One of the sessions at parent night could be a great way to get them to download and use seesaw.

STUDB-TF-You could cover it in your classroom. With your specific directions for your class.

3. How do you think you can apply this to your future classroom practice?

STUDB-T2-For general- Start informational "How to use" seesaw and the general introduction. I would also like a lesson on how edit it. I liked that I learned to use the "pause" feature and how I can use this instead of gallons of ink.

STUDB-IC- I would love to use the words "document", "reflect", and "Self Assess". This goes with our personalized learning initiative.

STUDB-TF- You can also edit people. If someone puts it on the wrong person you can edit it. You can also do group projects and make groups so people can see the group as a whole.

STUDB-T5- She showed the calendar and can pull up what the seesaw activity was done with the students. I did this with the TF and we can look it up.

STUDB-T2-Clarified how to take a paper activity and transform it in seesaw where they shared it out.

T3- Do we want to make a list of the ideas for August?

STUDB-T1- Short 1 minute read aloud "Me at the beginning of the year reading"-Great way to see if they are choosing just right books.

STUDB-TF-They can take a picture of the cover of the book and just record it.

STUDB-T5- You can use audio record feature.

STUDB-T2-Discussion on how to approve, feedback, edit and keep track of it.

STUDB-IC- yes...Discussion on how to approve, feedback, edit and keep track of it.

STUDB-TF-Showed how to do this.

STUDB-T2- Can they seesaw anything? Is it up to the teacher? In reading it is more self directed or do you give guidance (Is this a seesaw-able item?)

STUDB-TF- Describing a teacher. She uses it as a verb, "go seesaw it". She would say your best work.

STUDB-IC- How cool would it be to see the edits and the feedback.

STUDB-T4- You can use it for writing or even math. Describe their thinking.

STUDB-TF- Modeled it.

STUDB-IC-Used it for fast finishers to reflect on their learning.

STUDB-TF- Quick way of sharing.

STUDB-T5- I am able to send of pictures in two minutes to share with parents. In the day of social media and you can share everything. Use it as you pick and choose. The fact that it is that easy and I can...so I do.

STUDB-T2- I feel like the act of taking packing pictures when I should be more "with" the kids not sharing.

STUDB-TF-You have to have a digital presence.

STUDB-T3- This offers that "look" inside and allows the parent to see and hear their students.

STUDB-T4- It documenting and they can see it. It is moving to a different kind of sharing of their work-here is what your child did.

Figure 13. Studio Classroom Debrief Discussion Transcript (p. 2)

STUDB-T3-Builds the communication piece of what they are doing when they get home.

STUDB-T1- Being able to have the guide of what to ask their children get home.

**4. How did the delivery method in a "studio" classroom format impact your learning?**

STUDB-T2- It was 100% value. Seeing it. When you get to see it in action. Being a part of it, I know exactly what I need to say and do to bring it to my classroom.

STUDB-T3- My favorite part was seeing the kids. It was so empowering to see how they used the technology and how it was used in action. I really appreciate seeing it in action, how kids responded to each other, individually engaged and involved. They were so engaged, not the least bit confused. I enjoy and appreciate the opportunity to see the kids in the age that I am teaching in action. It helps me think about how to prepare or that I can leave it open for them.

STUDB-T5-I have learned that they can do it. They are capable. Now that I have seen kids can do it. They just know and have the skills to look at something and do it.

STUDB-IC- I have learned so much I have learned from being in the classrooms of others and just the secondary ways I can apply things from the room from the classroom.

**5. How did student physical presence impact your learning in the studio classroom format?**

STUDB-T1- because we can interact with them and hear actual learning. When you have so many teachers in the room that they can ask all of us. They feel like the kids of 2<sup>nd</sup> grade not just of our classroom.

STUDB-TF- I learned from them and they showed me a place I can tap to get the options.

STUDB-T5-Even for a child with learning needs it was great.

Figure 14. Studio Classroom Debrief Discussion Transcript (p. 3)

## **Appendix I: Technology Delivered Session Field Notes Description**

### **(1 Post-Session Survey Collected)**

This type of session was created using Schoology, which was a district utilized online learning management system. The researcher worked with School District 2 personnel—more specifically the director of technology and the district technology facilitators—to create a TPD experience that met the needs of the school or district. The content was based on the needs of District 2. It was created to explore how teachers perceived the usability of Schoology as an online grade-level PLC, where teachers could share grade level materials from different schools throughout the district. In this online learning management system, the teachers were encouraged to share student artifacts, lesson plans, lesson materials, and anecdotal descriptions of what they were actually doing with students in certain subject areas.

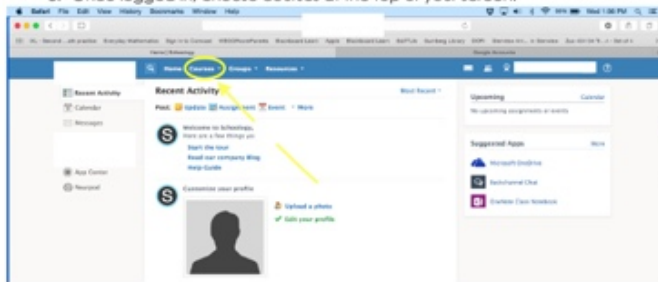
The session occurred between February 21st, 2017 and May 26th, 2017. The teachers were invited to participate via e-mail from the Director of Technology from District 2 and given a link and given instructions on how to access the technology based TPD session (see Figure 16). The district personnel team chose the grade-level (Grade 3) participants based on their needs. The teacher-participants could participate in the session from their iPads or laptops during their own time and were invited and encouraged to participate, but they were not required to participate in the study, which was provided by the researcher. This was followed by a review of the consent form in the online platform. In order to proceed into the PLC in the Schoology learning management system (LMS), it required that participants give consent electronically by clicking the appropriate box and agreeing to participate. They were then directed to the online TPD session for their participation. In the directions, they were encouraged to use the learning management system Schoology to share lessons, ideas, materials, student work, and more, in

order to allow more sharing of ideas and collaboration throughout the district grade level teams. The Grade 3 team—with all third-grade district teachers invited—were encouraged to use this space to see if it was a viable way to encourage across-district collaboration. The session was used by several participants, however data on perceptions of this session are very limited with only one survey respondent. Below are the directions that were given to teachers before accessing the Schoology session. These documents were de-identified to protect the identity of the school district and its teachers. I also have included images of the main set up of the LMS, the mandatory consent form, and the subject area folders that were created for sharing. A detailed description of the participation and results are shared in the Technology section of Chapter 4.

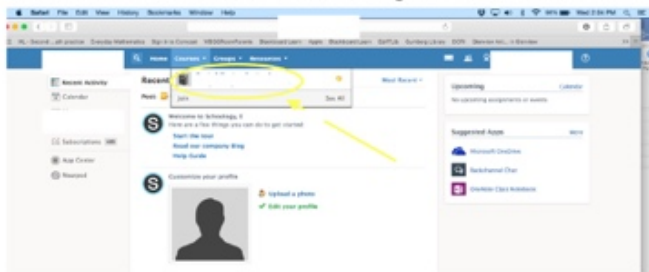


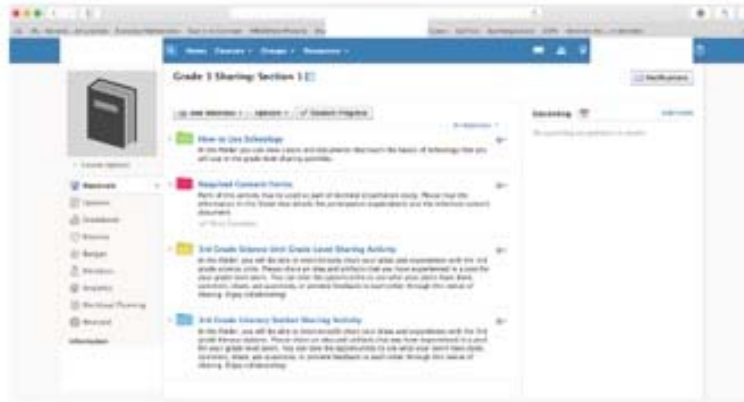
## How to Use Schoolology to Access Your Grade Level Share Site

1. Visit <https://schoolology.com>
2. Login with your Google Login
3. Once logged in, choose courses at the top of your screen.



4. Choose the course called "Grade 3 Sharing: Section 1".

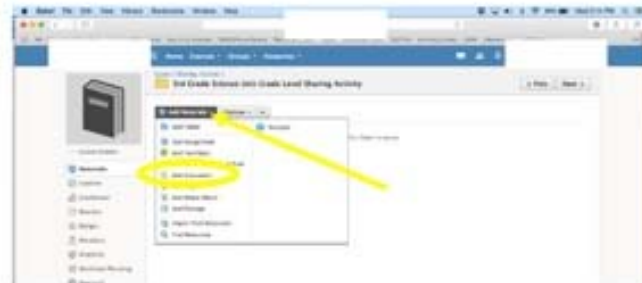


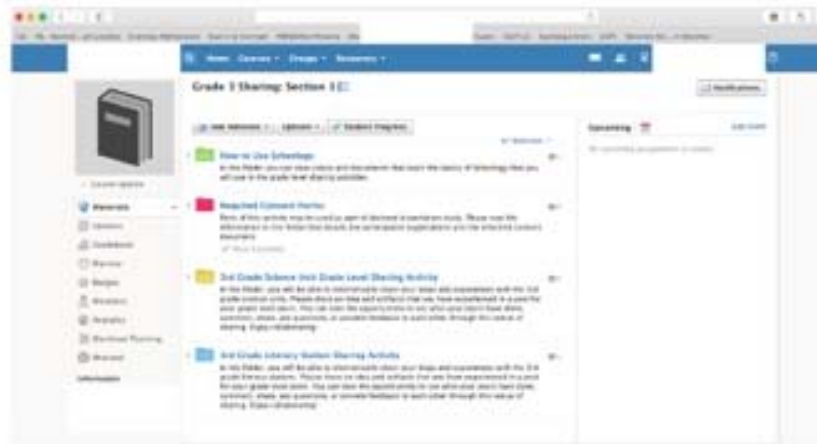


5. To learn more about Schoology: Choose the "How to use Schoology" folder for tips, videos, and more.
6. In order to begin sharing, you must first visit the folder that says, **"Required Consent Forms"**. This activity is part of a doctoral student research project. This link will give more information and an electronic link to a consent form. Please review this before you start sharing your work and give your consent electronically.
7. Now you are ready to share! The following show the steps to making your first discussion post to share with your colleagues.
  - a. **Decide the content for your discussion post.** Will you share a science or social studies unit that you or your team have completed with students? What artifacts do you have or could you share (lesson plans, images of student work, digital student creations, videos that students made, videos of classroom work and teaching, etc.)? Try to share something that the students had involvement in creating (work, videos, images, etc.).

(Please note: if you want to view a sample post for content ideas before you try it yourself, there is a sample in the 3<sup>rd</sup> Grade Science folder. It gives you the basics of what a post can include.)

- b. Choose the folder that applies to your subject area.
- c. Click "Add Materials" and choose "Add Discussion"





5. To learn more about Schoology; Choose the "How to use Schoology" folder for tips, videos, and more.
  6. In order to begin sharing, you must first visit the folder that says, "**Required Consent Forms**". This activity is part of a doctoral student research project. This link will give more information and an electronic link to a consent form. Please review this before you start sharing your work and give your consent electronically.
  7. Now you are ready to share! The following show the steps to making your first discussion post to share with your colleagues.
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- (Please note: If you want to view a sample post for content ideas before you try it yourself, there is a sample in the 3rd Grade Science folder. It gives you the basics of what a post can include.)**
- b. Choose the folder that applies to your subject area.
  - c. Click "Add Materials" and choose "Add Discussion"

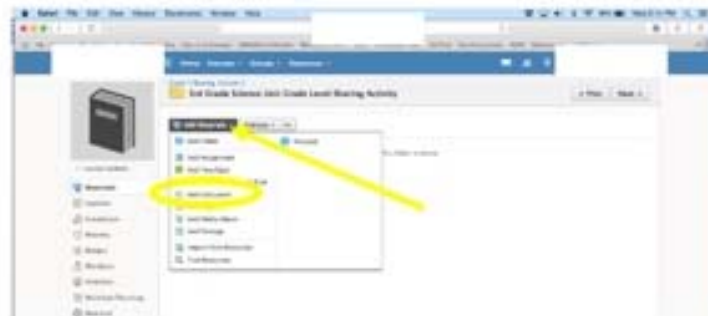


Figure 15. Teacher Directions for Schoology Online PLC



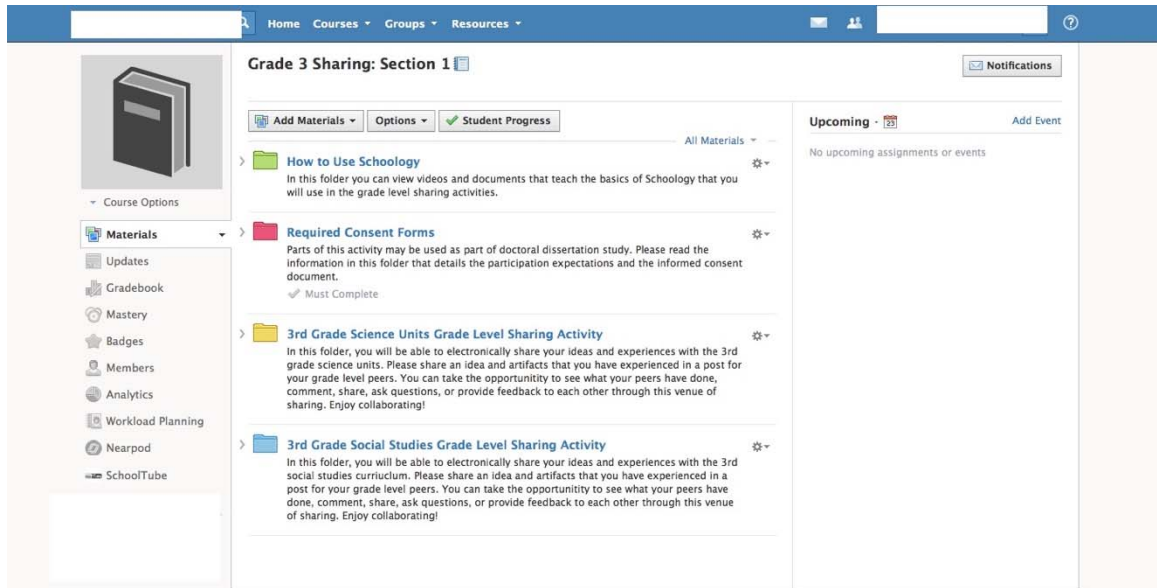


Figure 16. Main Set Up Page for Schoology Grade Level PLC

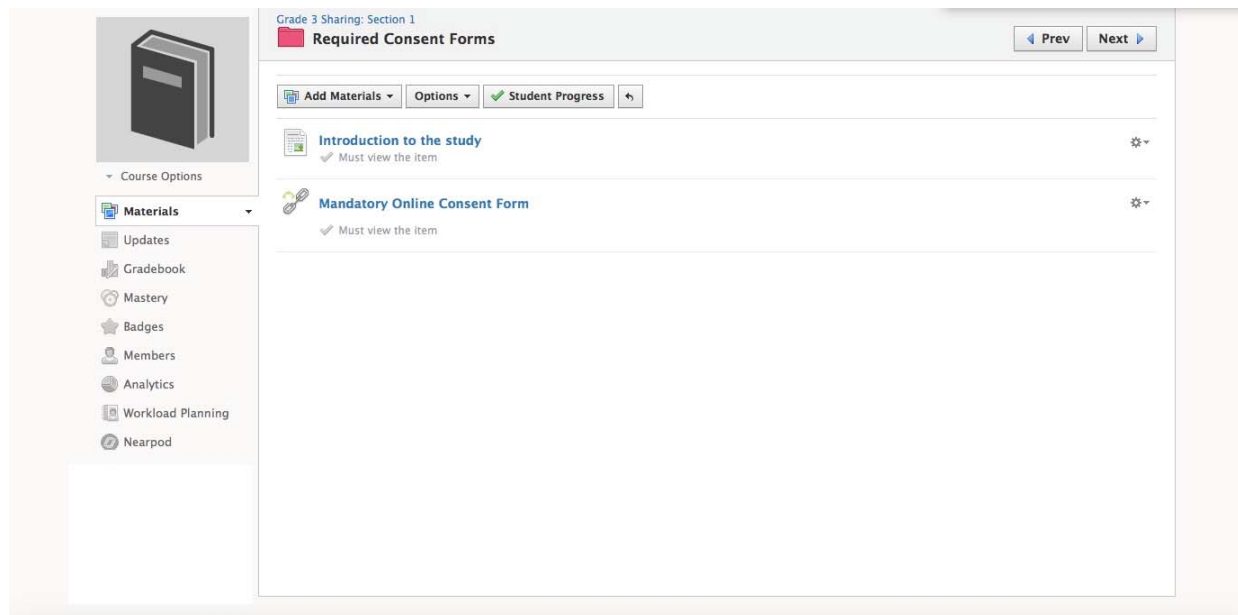


Figure 17. Mandatory Consent Section of Schoology Grade Level PLC

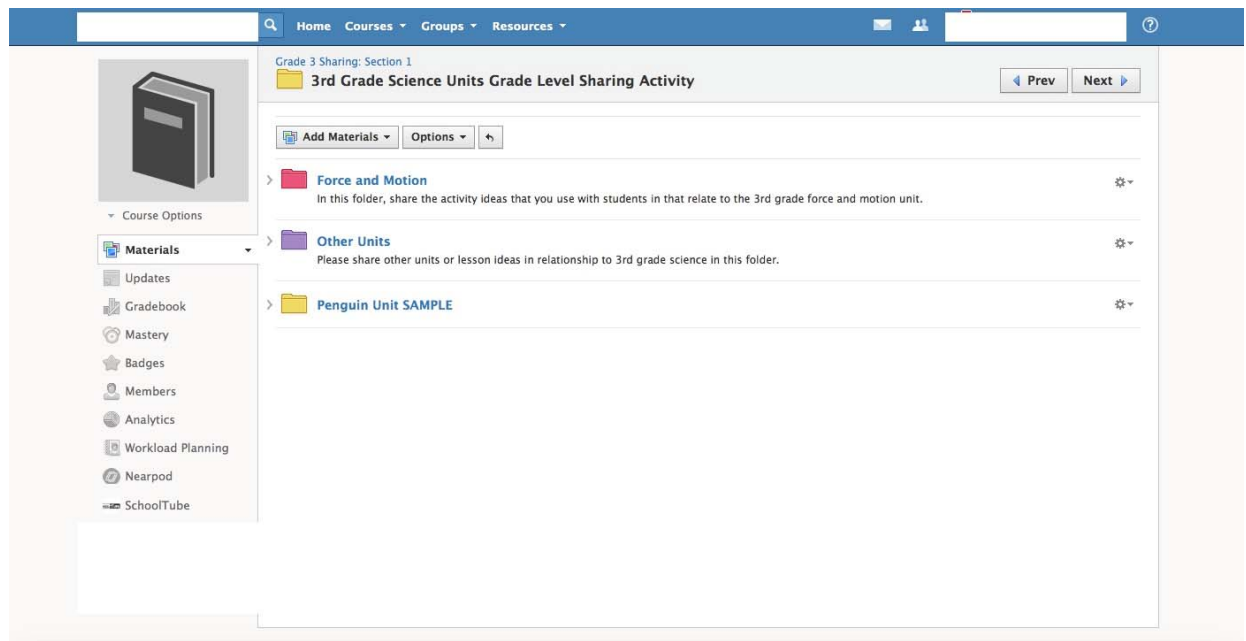


Figure 18. Science Sharing Folder for Schoology Grade Level PLC

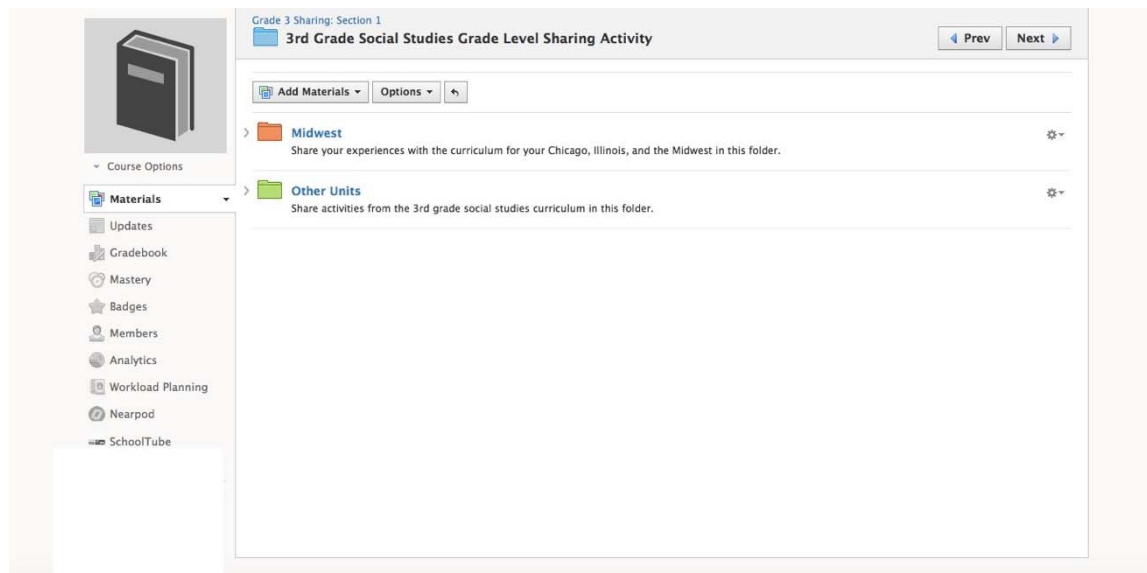


Figure 19. Social Studies Sharing Folder for Schoology Grade Level PLC

## Appendix J: “Seeing It” Data Table

**Table 18**

### *Teacher Perception Data Table “Seeing It”*

Table 14

“Seeing it” Teacher Perception Data on Authenticity, Usefulness, & Application

	VIDEO	COACH MODEL/TEAM TEACH	PEER OBSERVATION
LEVEL 1 SPLT	<p><b>29 SUR-K3WS2</b> The most useful aspect of this session was “watching the modeled lesson on video” (Survey Data, 2016).</p> <p><b>37 SUR-K3WS9</b> “...the videos that they showed on how a teacher implemented her lessons” were the most useful aspects of this session (Survey Data, 2017).</p>		
LEVEL 2 SPLT	<p><b>47 SUR-NTT1</b> “...watching the video about the kindergarten classroom gave us some ideas for a lesson that we are doing next week” (Survey Data, 2016-2017).</p>		
LEVEL 4 SPLT	<p><b>50 SUR-R11</b> The most useful aspect was “watching the student video”. This video included a model reading instruction lesson in which the teacher took a running record and modeled a comprehension conversation (Survey Data, 2018; Field Notes, 11-8-16 p.7-8).</p>		
LEVEL 5 SPLT		<p><b>1 SUR-ALF1</b> Seeing the instructional coach teach in their own classroom, “leaves me with a take away that I can use with my students in the future” and that “It has pushed me to challenge my students as well as myself” (Survey Data, 2017).</p> <p><b>6 SUR-ALF2</b> The most authentic aspect of the TPD session was, “observing the coach using components of the personalized learning experience within a lesson” (Survey Data, 4-2017).</p> <p><b>22 SUR-ALF7</b> The most useful aspect of the TPD session was, “...watching, learning, and listening to my coach in an area they have more expertise when they are with my students in the classroom” (Survey Data, 2017).</p> <p><b>57 INT3</b> Working with the coach was authentic because, “Seeing her do this in the classroom and model it makes it authentic. Being able to see it and then apply it is better than sitting in a PD session with a projector. I need to know what it looks like in a classroom so it is easier to implement. Seeing it in the classroom, seeing how it immediately applies. Each time I observe my instructional coach, the skills I observe her teach in each session improves and brings more personalized learning elements and critical thinking skills forward in my mind. I implement these more after these sessions” (Interview Data, 2017)</p>	

Table 14 Cont.

	Video	Coach Model/Team Teach	Peer Observation
LEVEL 6 SPLIT			<p><b>14 SUR-PIN1</b> The session was authentic because they were, "going into teachers' rooms at all times with them not always knowing you were coming". It was useful because they could "use the tips and observations" and because they were "able to see multiple grade levels" (Survey Data, 4-2017).</p> <p><b>15 SUR-PIN2</b> "Seeing other classrooms during lessons" made the session authentic. The most useful aspect was being, "inspired by fellow teachers' lessons...it was a great way to get out and see bulletin boards, seating arrangements, teaching styles, etc." (Survey Data, 4-2017).</p> <p><b>16 SUR-PIN3</b> "...having the time to go and visit other rooms and take back some usable information" made the session authentic (Survey Data, 4-2017).</p> <p><b>17 SUR-PIN4</b> "I thought being able to see teachers doing their daily routines as opposed to a great specially chosen lesson made the experience more enlightening and authentic (Survey Data, 4-2017).</p> <p><b>10 SUR-TIER2</b> "...came away with quite a few ideas for improving my tier 2 time in the classroom" and "got a few ideas for classroom set up and management" (Survey Data, 2017).</p> <p><b>11 SUR-TIER3</b> Shared that the most authentic aspect of the session was, "Being in the actual school setting watching tier time" (Survey Data, 4-2017).</p> <p><b>13 SUR-TIER5</b> "...felt that being in another school really helped me see what is going on outside of the school I work at. It was wonderful to see other teachers doing things that I would like to implement in my classroom. Seeing the "delivery system in action" and "the process of setting up their tier interventions" would support their future application of the TPD session (Survey Data, 4-2017).</p> <p><b>61 INT7</b> It was authentic because, "It wasn't staged classroom visits. It was just a regular day. Seeing their rooms and a lesson in action. It was real life. Real time" (Interview Data, 2017).</p>
LEVEL 7 SPLIT		<p><b>2 SUR-STU1</b> The most authentic aspect of the studio classroom session was, "Being in the room watching the lesson as it rolled out. The most useful aspect of the studio classroom session was "being able to watch the lesson in action...I am going to do this lesson this week with my kids" (Survey Data, 5-2017).</p> <p><b>3 SUR-STU2</b> Shared that they, "...feel more confident trying some of the strategies we learned today having seen it in action with a classroom of second graders" (Survey Data, 2017).</p> <p><b>5 SUR-STU4</b> Said that they, "...can begin applying what I learned today immediately" after seeing the studio classroom model lesson (Survey Data, 2017).</p> <p><b>STUDB-T2</b> Said that it was, "It was 100% value. Seeing it. When you get to see it in action. Being a part of it, I know exactly what I need to say and do to bring it to my classroom" (Studio Classroom Debrief Notes, 5-22-17).</p>	

## Appendix K: Collaboration Data Table

**Table 19**

### *Teacher Perception Data Table on Collaboration*

Table 19 "Collaboration" Teacher Perception Data on Authenticity, Usefulness, & Application

	COLLABORATION (GENERAL)	COLLABORATION (LIKE-PEERS)	COLLABORATION (PRE/POST DISCUSSION)
LEVEL 2 SPLT	<p><b>47 SUR-NTT1</b> The most authentic elements of the TPD session were, "Conversations of what teachers are doing in their classrooms, connections to their own ideas, etc. after watching a video, looking at a graphic, etc." The most useful aspect of the TPD session was, "Conversation and sharing of ideas" (Survey Data, 2017).</p> <p><b>51 SUR-DD1</b> The "break out sessions to work with team members" were the most authentic elements of the TPD session. They shared that their future application ideas came from a discussion with her partner about classroom strategies (Survey Data, 05-2017).</p>	<p><b>54 SUR-DD2</b> The "time to talk with teammates" was the most useful aspect of the TPD session (Survey Data, 2017).</p>	
LEVEL 3 SPLT	<p><b>44 SUR-MLS7</b> The most authentic element of the TPD session at level 3 was, "collaborating with district partners" (Survey Data, 1-2017).</p> <p><b>45 SUR-MLS8</b> Working with "staff from other schools" was the most useful aspect (Survey Data, 2017).</p> <p><b>46 SUR-MLS9</b> Shared that they "appreciated the time to work across district by grade level" and that this was what made it authentic (Survey Data, 1-2017).</p> <p><b>35 SUR-MLS1</b> The most authentic element was, "the opportunity to get clarification from the administrator and time to collaborate with peers" (Survey Data, 1-2017).</p> <p><b>43 SUR-MLS6</b> The most authentic aspect of the session was the, "opportunity to collaborate with the administrator" (Survey Data, 1-2017).</p>	<p><b>41 SUR-MLS4</b> The collaborative time was the most authentic element because it provided a, "Good chance to interact with peers and come to consensus" and noted that "peer collaboration" also was important to authenticity (Survey Data, 1-2017).</p> <p><b>42 SUR-MLS5</b> The most authentic element was, "Evaluating our curriculum with other teachers in the district" in a middle level curriculum mapping session which, worked within and across grade level teams. "Working and evaluating with our peers" was most useful (Survey Data, 1-20-17; Field Notes 1-23-17 p. 16-19).</p> <p><b>43 SUR-MLS6</b> "Having time to discuss with peers" was the most useful aspect (Survey Data, 1-2017).</p> <p><b>75 EOY2</b> It was useful because "We were still trying to unanimously agree across the district on a new curriculum" (Survey Data, 1-2017).</p>	
LEVEL 4 SPLT	<p><b>24 SUR-DALF1</b> The most authentic element of the level 4 TPD session was, "Being able to communicate with other educators and apply strategies we learned about in classroom-like experiences" (Survey Data, 4-2017).</p> <p><b>26 SUR-DALF3</b> The most authentic aspect was "...having the interaction with colleagues discussing the topic at hand" and "using their input to create strains of thought" (Survey Data, 4-2017)</p> <p><b>53 SUR-RI3</b> They stated that the most authentic aspect was, "...the discussion at our tables with my colleagues. I learn a lot from the people I teach with everyday" (Survey Data, 11-2016).</p> <p><b>80 EYO7</b> The experiences were applicable because of "collaborative efforts with other grade levels" (Survey Data, 2017).</p>	<p><b>50 SUR-RI1</b> Explained that "working with team mates" was the most useful part of the TPD session (Survey Data, 2017).</p> <p><b>65 INT11</b> "When a PD presentation allows discussion with job-alike peers it is more powerful" (Interview Data, 2017).</p>	<p>See the table <b>"Student Presence Teacher Perception Data on Authenticity, Usefulness, and Application"</b> for detailed textual examples of collaboration in a pre/post conference.</p>

Table 19 Cont.

	COLLABORATION (GENERAL)	COLLABORATION (LIKE-PEERS)	COLLABORATION (PRE/POST DISCUSSION)
LEVEL 5, 6, & 7 SPLT	<p><b>Level 5</b></p> <p><b>55 INT1</b> Shared that her team teaching experience (SPLT level 5) and collaboration with her instructional coach, "...sparked my mind and allowed me to have ideas I may not have come up with" (Interview Data, 2017).</p> <hr/> <p><b>Level 6</b></p> <p><b>9 SUR-TIER1</b> "Talking with teachers" was the most useful aspect of the session (Survey Data, 2017).</p> <p><b>10 SUR-TIER2</b> "The discussion with teachers" was most useful (Survey Data, 2017).</p> <p><b>11 SUR-TIER3</b> "Being given time to sit and discuss and as questions with teachers" was most useful and that it was "helpful to hear what diagnostic tools they use" (Survey Data, 2017).</p> <hr/> <p><b>Level 7</b></p> <p><b>4 SUR-STU3</b> The most useful aspect was the "time spent with colleagues" (Survey Data, 2017).</p>	<p>See the table <b>"Student Presence Teacher Perception Data on Authenticity, Usefulness, and Application"</b> for detailed textual examples of collaboration in a pre/post conference.</p>	<p>See the table <b>"Student Presence Teacher Perception Data on Authenticity, Usefulness, and Application"</b> for detailed textual examples of collaboration in a pre/post conference.</p>

## Appendix L: Student Presence Data Table

**Table 20**

### *Teacher Perception Data Table on Student Physical Presence*

"Student Physical Presence" Teacher Perception Data on Authenticity, Usefulness, & Application				
	STUDENTS PRESENT IN THE TEACHERS' OWN CLASSROOMS	STUDENTS PRESENT IN THE CLASSROOMS OF OTHERS	STUDENT PRESENCE IN OTHER SCHOOLS	PRE/POST COLLABORATION INCLUDED
<b>LEVEL 5 SPLT</b>	<p><b>57 INT3</b> Shared that the most authentic element was, "someone coming in to work with you and your classroom full of kids" (Interview Data, 2017).</p> <p><b>19 SUR-ALF4</b> "The kids, they just say it the way it is! Or don't say it at all" (Survey Data, 4-2017).</p> <p><b>20 SUR-ALF5</b> Shared that the most authentic element of the session was seeing the, "student reflection on what they like/dislike about poetry". It was useful because "...when Mrs. A (Instructional Coach) comes in my students will be engaged in high quality lessons/activities that stretch them and engage them" (Survey Data, 2017)</p> <p><b>21 SUR-ALF6</b> "The opportunity to observe my students level of engagement" was the most useful aspect of the TPD (Survey Data, 2017).</p> <p><b>22 SUR-ALF7</b> They enjoy "...watching, learning, and listening to the coach in an area in which they have more expertise when they are with my students in the classroom. It allows me to observe the students' responses and reflect on how I would present the same lesson" (Survey Data, 2017).</p> <p><b>56 INT2</b> "It is helpful because it is with my class and students. I feel like watching another class I have to think about how it would look in my room, but with this I don't, I get to see it" (Interview Data, 2017).</p>	N/A	N/A	<p><b>21 SUR-ALF6</b> "The interaction/rapport of the coach with the classroom teacher and students in her class" made the session authentic (Survey Data, 4-2017).</p> <p><b>55 INT1</b> The element that made the session authentic for them was, "... the coach teaching because we planned together, taught together, and then assessed the kids together" (Interview Data, 2017).</p> <p><b>22 SUR-ALF7</b> Shared that it wasn't just the idea of seeing a model lesson in the classroom with students, but also the, "planning together and then reflecting on the lesson together" with the coach made the lesson authentic.</p> <p><b>23 SUR-ALF8</b> The coach "...had a very real image of what classrooms are actually like. They were very willing to both share and listen to what our opinions and thoughts were" (Survey Data, 4-2017).</p> <p><b>57INT3</b> "We plan and co teach often. Seeing her do this in the classroom and model it makes it authentic" (Interview Data, 2017).</p> <p><b>75EOY2</b> "...could implement the strategies immediately and get peer and coach feedback shortly after the implementation" (Survey Data, 5-2017).</p>
<b>LEVEL 6 SPLT</b>	N/A	<p><b>78 EOY5</b> It was useful because "I could see how the practices could be used in a classroom setting" (Survey Data, 2017).</p> <p><b>14 SUR-PIN1</b> The session was authentic because they were, "going into teachers' rooms at all times with them not always knowing you were coming" (Survey Data, 4-2017).</p>	<p><b>9 SUR-TIER1</b> Shared that they came away with "...great ideas of what I can implement in my classroom" (Survey Data, 2017).</p> <p><b>11 SUR-TIER3</b> The most authentic aspect of the session was, "Being in the actual school setting watching tier time" (Survey Data, 4-2017).</p>	<p><b>18 SUR-PIN5</b> When referring to the lunch and discussion session after her walk the halls: "Excited to hear people's feedback about visiting multiple rooms and various grade levels" and that this time to discuss made it most the useful aspect (Survey Data, 2017).</p>

	STUDENTS PRESENT IN THE TEACHERS' OWN CLASSROOMS	STUDENTS PRESENT IN THE CLASSROOMS OF OTHERS	STUDENT PRESENCE IN OTHER SCHOOLS	PRE/POST COLLABORATION INCLUDED
LEVEL 6 SPLT CONT.	N/A	<p><b>61 INT7</b> It was authentic because, "It wasn't staged classroom visits. It was just a regular day. Seeing their rooms and a lesson in action. It was real life. Real time". They also observed the grade level below the one they taught (Interview Data, 2017). They shared that it was, "...great to see what the structure was like for my incoming students. I was also introduced to my future students, which was great" (Interview Data, 2017).</p> <p><b>16 SUR-PIN3</b> "having the time to go and visit other rooms and take back some usable information" made the session authentic (Survey Data, 4-2017).</p> <p><b>17 SUR-PIN4</b> "I thought being able to see teachers doing their daily routines as opposed to a great specially chosen lesson made the experience more enlightening and authentic (Survey Data, 4-2017).</p> <p><b>18 SUR-PIN5</b> "Observing the actual classroom gives the opportunity for the most honest situation" (Survey Data, 2017).</p> <p><b>60 INT 6</b> Gave her new ideas to apply. "A lot of the classrooms had greeters. I liked this welcome and having them learn to greet someone and look them in the eye. I will implement this next year" (Interview Data, 2017).</p>	<p><b>12 SUR-TIER4</b> "...being in another school really helped me see what is going on outside of the school I work at. It was wonderful to see other teachers doing things that I would like to implement in my classroom" (Survey Data, 4-2017).</p> <p><b>13 SUR-TIER5</b> The most authentic aspect of this session was being in a "real classroom situation" (Survey Data, 4-2017).</p>	
LEVEL 7 SPLT		<p><b>3 SUR-STU2</b> The most authentic element of the session for them was, "being in a classroom with students with whom we are familiar" (Survey Data, 5-2017).</p> <p><b>4 SUR-STU3</b> "Being in the classroom with the kids" made it more authentic (Survey Data, 5-2017).</p> <p><b>5 SUR-STU4</b> "Being in the moment of the classroom settling with students that are demonstrating the skill is most helpful" (Survey Data, 5-2017).</p> <p><b>69 FGT001</b> "It is believable when they are there" when referring to the level 7 studio classroom TPD session that they attended (Focus Group Protocol, 5-2017).</p>		<p><b>3 SUR-STU2</b> The "time to meet and preview the lesson/goals prior to the classroom experience" and the "time to collaborate and debrief with our colleagues" that made this session most authentic. They also stated that the "The time in the classroom was obviously at the heart of what I learned, but I think the time before and after the lesson helped me bring everything together to make it useful in future planning for my own classroom" (Survey Data, 2017).</p> <p><b>4 SUR-STU3</b> "being with my grade level colleagues" was important in their view of what made this experience authentic (Survey Data, 5-2017).</p>



	STUDENTS PRESENT IN THE TEACHERS' OWN CLASSROOMS	STUDENTS PRESENT IN THE CLASSROOMS OF OTHERS	STUDENT PRESENCE IN OTHER SCHOOLS	PRE/POST COLLABORATION INCLUDED
LEVEL 7 SPLIT CONT.		<p><b>71 FGT003</b>            "You get ideas on how to tweak it for your class and students and it is going through your head the entire time you watch. Your mind is rolling on how it works for you. It gets you ten steps ahead. You feel like it is doable. When you see it in action you can see how much easier it is. It wasn't the monster I thought it was" (Focus Group Protocol, 5-2017).</p> <p><b>70 FGT002</b>            "I can see my kids through a different lens. I can interact with different kids and see them for the first time, even being in someone else's room. I see kids differently and get to see them in action. It becomes real." (Focus Group Protocol, 5-2017).</p> <p><b>73 FGT005</b>            Including student physical presence was authentic because it meant, "Seeing it in action. Seeing what it looks like with students" (Focus Group Protocol, 5-2017).</p> <p><b>3 SUR-STU2</b>            They feel, "...more confident trying some of the strategies we learned today after having seen it in action with a classroom of second graders" (Survey Data, 2017).</p> <p><b>78 EOY5</b>            "I could see how the practices could be used in a classroom setting" (Survey Data, 2017).</p> <p><b>70 FGT002</b>            The most useful aspect of was seeing, "The dynamics of your school, your students, and the hands on learning that you don't get until you work" (Focus Group Protocol, 2017).</p> <p><b>STUDB-T3,</b>            "...It was so empowering to see how (kids) they used the technology and how it was used in action...I enjoy and appreciate the opportunity to see the kids in the age that I am teaching in action. It helps me think about how to prepare or that I can leave it open for them" (Studio Classroom Debrief Notes, 5-22-17).</p> <p><b>2 SUR-STU1</b>            Shared that they are going to, "...do this lesson next week with my kids" (Survey Data, 2017).</p>		<p><b>70 FGT002 &amp; 75 FGT005</b>            "discussions and observations like the focus group model" are the types of sessions they enjoyed most (Focus Group Protocol, 2017).</p>